FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

FEBRUARY, 1955

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Chicago fire fighters start New Year with five-alarm blaze
(Article on Page 51)

A CASE - SHEPPERD - MANN PUBLICATION

is Your Community protected

by the MOST EFFECTIVE resuscitating apparatus known to science ?

EMERSON Resuscitators

SIMPLE to operate, with no complicated adjustments.

SAFE for adults, children, or infants. There is no record of lung injury from the pressures used in thousands of cases in more than ten years.

EFFECTIVE The suction phase, alternating with the positive phase, helps circulation and can be of life-and-death importance, especially to victims in shock.

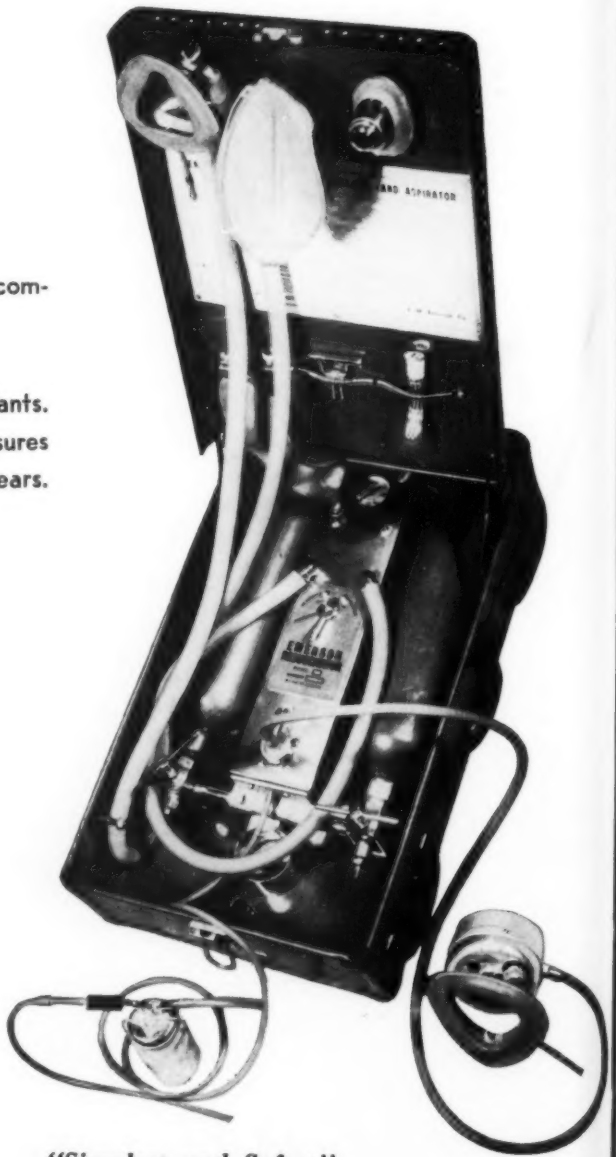
ACCEPTED by the American Medical Association for use by laymen (A.M.A. Journal, May 30, 1942). Relied on from coast to coast by thousands of leading hospitals and fire departments.

Write for our free

Medical Reference on Resuscitation

Information and Demonstration

Bulletin on a New Manual Method of Artificial Respiration



"Simplest and Safest"

J. H. EMERSON COMPANY

88 COTTAGE PARK AVENUE, CAMBRIDGE 40, MASSACHUSETTS

LOOK AT IT-

from another angle!

Modern fire trucks vary considerably in design and equipment. There is little choice in selecting adequate warning signals, because only the best is good enough!

In recent years few purchasers have been so short sighted as to omit the Beacon Ray light from their specifications. This famous FEDERAL 360° rotating light has now bcome almost standard fire apparatus equipment. IT SHOULD, because nothing equals it for the protection afforded. The Beacon Ray along with powerful FEDERAL Sirens provides the ultimate in warning signals and, consequently safe operation.

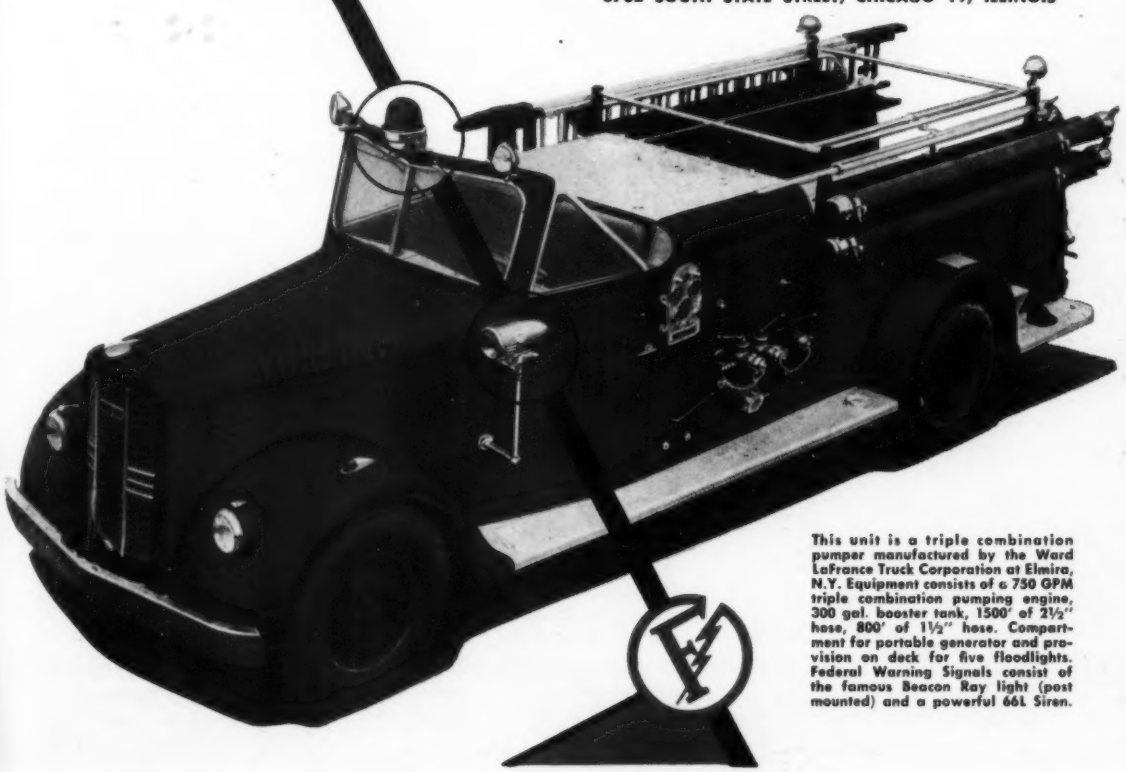
The use of the Beacon Ray isn't confined to one type of vehicle; the pipe-post mounted Beacon Ray is adaptable to open cab use as shown. The model 66L Siren audibly calls attention to this vehicle identified visibly by the Beacon Ray. No matter from what angle you view it, the Beacon Ray is an important part of modern equipment. Don't operate in 1955 on obsolete standards. Equip your old as well as new vehicles with the ultimate in protective warning signals. Save time, save property, save lives with a FEDERAL Beacon Ray light and a FEDERAL Coaster Siren. Write today for further information on Warning Signals.

FEDERAL

SIGN and SIGNAL Corporation

Formerly: Federal Enterprises, Inc.

8702 SOUTH STATE STREET, CHICAGO 19, ILLINOIS



This unit is a triple combination pumper manufactured by the Ward LaFrance Truck Corporation at Elmira, N.Y. Equipment consists of a 750 GPM triple combination pumping engine, 300 gal. booster tank, 1500' of 2½" hose, 800' of 1½" hose. Compartment for portable generator and provision on deck for five floodlights. Federal Warning Signals consist of the famous Beacon Ray light (post mounted) and a powerful 66L Siren.

FIRE ENGINEERING

A Consolidation of FIRE AND WATER ENGINEERING, THE FIRE ENGINEER, FIRE PROTECTION *and* FIRE SERVICE

FRED SHEPPERD
Editor

ROI B. WOOLLEY
Assistant Editor

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MEMBER
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Associated Business Publications

The Learned Lincoln

"I *WILL study and prepare, and some day my chance will come,*" said the man whose birthday we celebrate this month.

● There is no better example of what preparation and study can do for a man than "the Great Emancipator." Born in a backwoods cabin, reared away from schools and libraries, he learned the hard way, by candlelight and the few books he could secure.

● There were no engineering and professional journals in his day, and few scientific textbooks. But he didn't worry about that. He studied with what was at hand, and he prepared. And when his chance came, he was ready.

● Today, in every field, the man who seeks knowledge can gain it, and at little cost. This is true in the fire service as in other occupations. There is FIRE ENGINEERING, as a starter. No single technical Journal reaches so many top-flight fire protection and engineering authorities.

● Then, too, there are the textbooks and manuals issued by its publishers—knowledge which, it is a pretty safe conclusion would—if "Honest Abe" were associated with the nation's fire service today, be at his very elbow.

● There may be other ways to gain promotion than by just plain study and knowledge of what it's all about; but there are no other ways we know of whereby a man can *keep* the position he has won, with honor and credit to himself, except through applied knowledge.

The Publishers

FIRE ENGINEERING

The Journal of the Fire Profession since 1877; published on the fifteenth of each month by Case-Shepperd-Mann Publishing Corp., 24 West 40th Street, New York 18, N. Y., also publishers of *Water Works Engineering, Wastes Engineering*, etc. ¶Subscription price: United States and Canada, $3.50 a year; Pan-American and Foreign, $4.50; Single Copies, 40c. ¶Member of Audit Bureau of Circulations and Associated Business Publications, Inc. ¶Entered as second-class matter April 15, 1929, at the Post Office at New York, N. Y., under Act of March 3, 1879.

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¶President and Advertising Director, KARL M. MANN; Vice-President and General Manager, I. HERBERT CASE; Secretary and Editorial Director, FRED SHEPPERD; Assistant Advertising Director, WALTER H. FREDRICKS; Eastern Representatives, WILLIAM J. GIBSON, ALFRED J. HOUGHTON; CHICAGO OFFICE: L. M. ROCHE, RICHARD R. BAUM, 8 So. Dearborn St., Chicago 3, Ill.; LOS ANGELES: AUGUST HAURIN, 6000 Miramonte Blvd., Los Angeles 1, Calif. ¶Printed in U.S.A.

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"*Specialized* Leadership"

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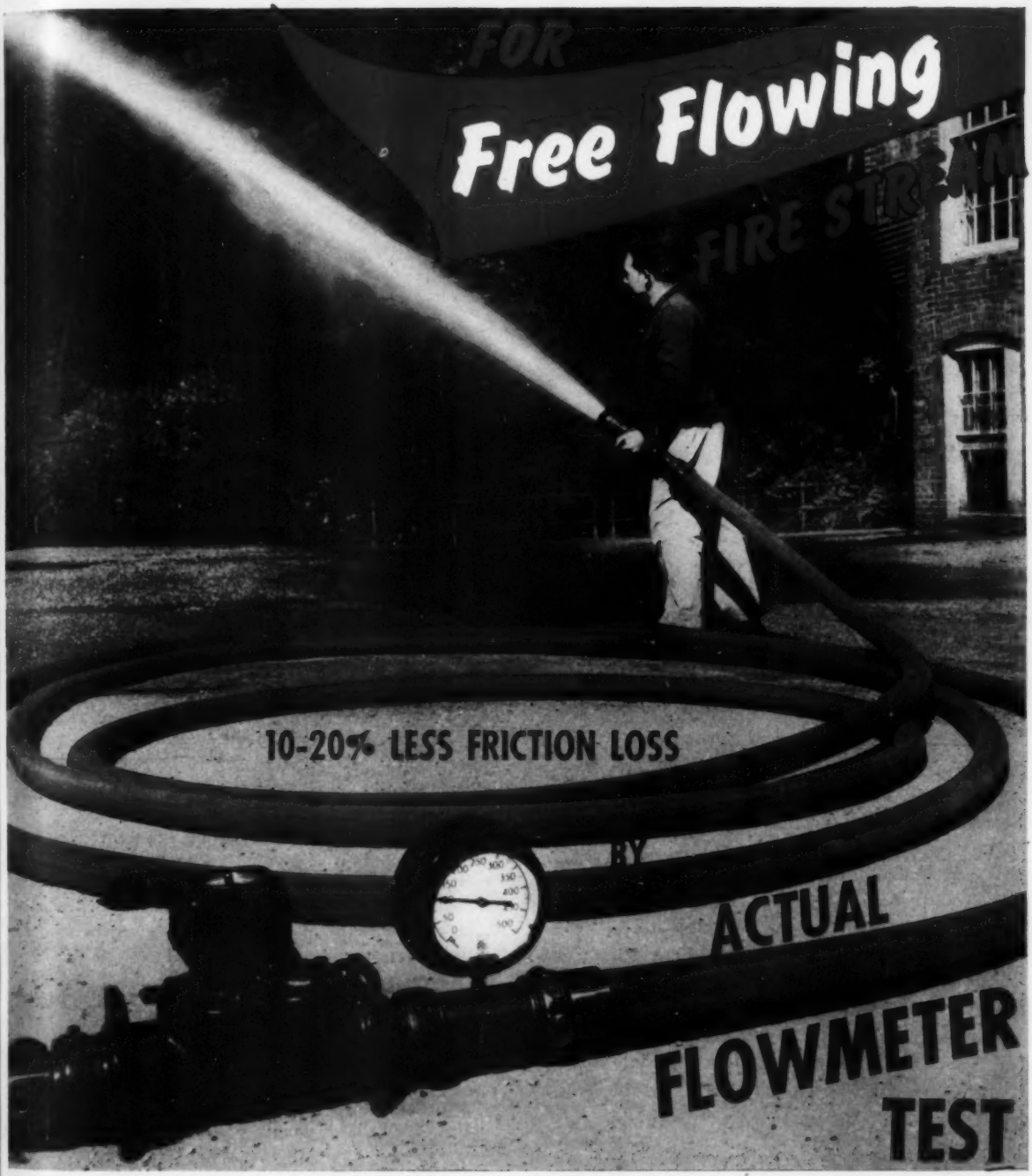

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SANDY HOOK CONNECTICUT

IN CANADA BICKLE-SEAGRAVE, LTD. WOODSTOCK, ONTARIO

VERSATILITY

IS THE KEYNOTE

OF THIS

American

FIRE TRUCK

IN ACTION, it's more versatile because it's *designed* to meet *more* different situations and fight *more* types of fires more effectively than ordinary trucks. For example, this truck will draw water from hydrants, ponds, streams, cisterns or stock-watering tanks. In addition, it carries its own water supply for fire-fighting effectiveness when other sources are not available—and for fighting running grass fires *on the move!*

Equipment consists of ladders, extinguishers, two reels, 300 feet of booster hose, Barton Super-Fog guns; in fact, all accessories to meet the requirements of the National Board of Fire Underwriters.

The Barton-American Type UA Front-mounted Pump features proved, effective frost-proof construction and *exclusive* combination friction and positive interlocking clutch mechanism *not* available on any other pump. Front pump location results in better balance on the road and *extra* body capacity for water or equipment.

For complete information, contact your nearest representative. American Fire Apparatus is built in Battle Creek, Michigan, and Marshalltown, Iowa.

Midship pump models also available.

American

FIRE APPARATUS CO.

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Main Office: Main St. Road, Battle Creek, Mich.

"Always Pioneering with Better Engineering."

RESEARCH KEEPS **B.F.Goodrich** FIRST IN RUBBER

Omaha fire chief calls it "delivering more merchandise"

THE chief in Omaha, Neb., where this picture was taken, has the right idea. He says he's "in business to satisfy customers" like anyone else, and his merchandise is water where and when it's needed.

That's why he insists on strong, easy-to-handle B. F. Goodrich hose. The Omaha Department has 30,000 feet of it altogether—some of it still on the job after 10 years. But the hose that really has them sold is Highflex, the latest hose development to come out of B. F. Goodrich.

Highflex has all the features you'd expect to find only in expensive, premium hose, yet it's sold at the price of regular. A new chemically-produced cord in the woven jacket increases the strength of Highflex by 50%—and does it with a 23% saving in weight, and without loss of water capacity.

With Highflex, fire trucks can carry a third more hose, and firemen can get it up the ladder to the fire much faster. After the fire is out, Highflex packs easily, quickly into a tight, 2-foot coil. And back at the station, it cuts minutes from loading time because it racks naturally on the truck bed, doesn't kink or twist.

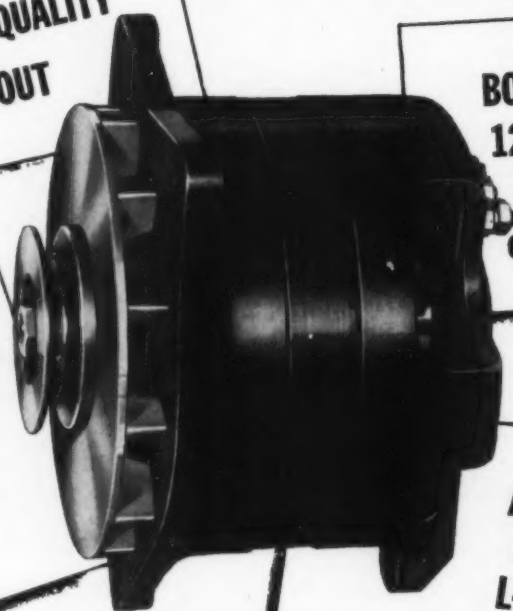
To sum it all up—Highflex is a tremendous improvement over other fire hose. It's lighter, stronger, easier to handle—yet it costs not one penny more. Ask a BFG Fire Hose Distributor to bring you a sample. Then compare it with the hose you're now using—you'll feel the difference right away. *The B. F. Goodrich Company, Dept. M-368, Akron 18, Ohio.*

B.F.Goodrich
INDUSTRIAL PRODUCTS DIVISION

A NEW LEECE-NEVILLE ALTERNATOR SYSTEM THAT ACTUALLY *COSTS LESS* THAN "EXTRA" OUTPUT D. C. GENERATORS!

TYPICAL LEECE-NEVILLE QUALITY THROUGHOUT

BOTH 6-VOLT and 12-VOLT MODELS for passenger cars and trucks



NEW SIMPLIFIED BRACKETING MAKES INSTALLATION EASY

ALL the famous advantages of L-N Alternators, including...

- AMPLE OUTPUT FOR ACCESSORIES
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- LOW MAINTENANCE COST

Write, wire or phone today for full details and the amazing low price. The Leece-Neville Company, Cleveland 14, Ohio. *Distributors in principal cities . . . service stations everywhere*

YOU CAN RELY ON... **Leece-Neville ALTERNATORS**

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Keep "ON YOUR TOES" with

INDIAN
FIRE PUMPS

Don't get caught "flat footed" without an ample supply of the clear water back-pack extinguishers which are "the choice for quality the world over."

For many years INDIAN FIRE PUMPS have been unsurpassed in design, performance and construction. There is nothing else "just as good." Our company was established in 1888.

To fight fires faster, easier, more efficiently get the equipment that is without equal — get INDIAN FIRE PUMPS! Approved by Underwriters' Laboratories. "They are worth their weight in gold."

"Choice for Quality the World Over."

The INDIAN is available in the lever type, known as our No. 80 INDIAN.

"We have used **SMITH INDIAN FIRE PUMPS** for several years and now need two more which please ship at once. We cannot afford to be without **INDIANS** and consider them to be the handiest piece of fire fighting equipment on our truck."

F. H. SANDERS, *Mayor*
Aliceville, Alabama

Fire Truck unit built by Howe Fire Apparatus Co. of Anderson, Ind. and recently delivered to Library Fire Dept.; Library, Pa. Note **INDIAN FIRE PUMPS** mounted in place. More new trucks are coming through with **INDIANS** as specified equipment.

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Established 1888

SEND FOR CATALOG DESCRIBING INDIAN FIRE PUMPS and containing many testimonials. They are "choice for quality the world over."

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WILMINGTON WAREHOUSING CO. protects its property *Automatically*.... gets better FIRE and BURGLARY PROTECTION and

SAVES $3,150 A YEAR

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At 6:01 p.m., March 10, 1954, a fire started in our men's locker room and was immediately reported automatically to the fire department. Though our sprinkler system had the fire practically under control when the engines arrived, your waterflow alarm service notified the fire department in time to prevent excessive water damage.

On the night of September 15, 1954, ADT again proved its value when two strangers were caught inside the building.

Besides the above efficient service, we save $3,150 a year over the cost of protection formerly maintained. We want you to know that we appreciate this efficient service.

WILMINGTON WAREHOUSING CO.

Harry E. Fischer

Harry E. Fischer, Mgr.

Twice within six months, officials of the Wilmington Warehousing Co. experienced, first-hand, the all-round effectiveness of ADT Automatic Protection Services.

The warehouse is protected by a combination of ADT Central Station Sprinkler Supervisory and Waterflow Alarm and ADT Burglar Alarm Services. Manager Harry E. Fischer's endorsement is typical of the satisfaction expressed by thousands of business executives from coast to coast who are obtaining better protection at lower cost through complete ADT *Automatic* Protection.

Whether your premises are new or old, sprinklered or unsprinklered, the appropriate ADT Fire Alarm Service will detect fire and notify the fire department *automatically*. ADT Burglar Alarm Service will *automatically* summon police when burglars attack. ADT Heating and Industrial Process Supervision will *automatically* detect and report other abnormal conditions.

ADT safeguards, electrically, many billions of dollars' worth of tangible and intangible assets owned by 57,000 subscribers in more than 1,600 municipalities. An ADT specialist will be glad to show you how combinations of automatic services can protect *your* property, profits and employees' jobs by minimizing fire and burglary losses.

Call our local sales office if we are listed in your phone book; or write to our Executive Offices.

ADT

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AMERICAN DISTRICT TELEGRAPH COMPANY
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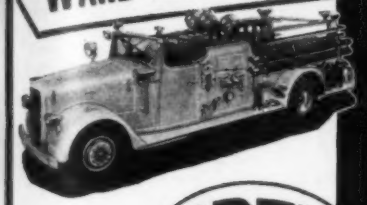
first in fire fighting

WARD LA FRANCE



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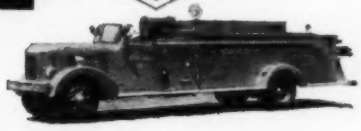
THE GENERAL FIRE TRUCK CORP.



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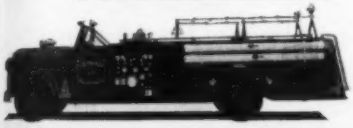

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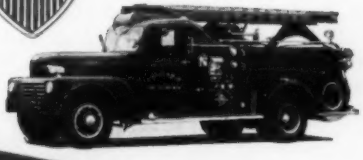

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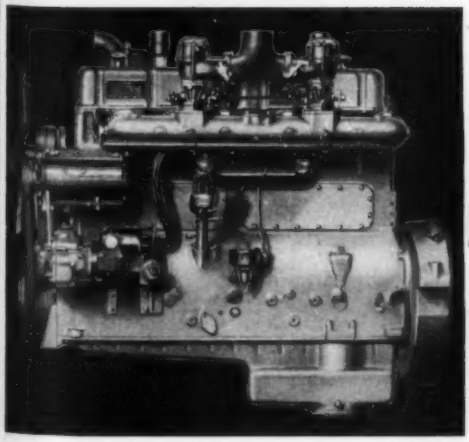

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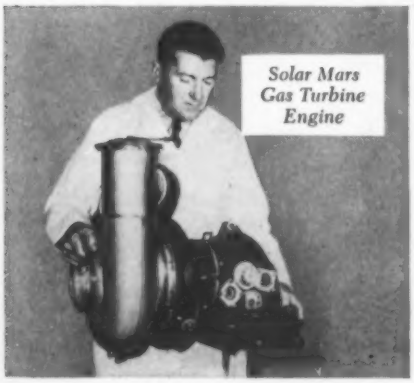
145-GZB
High Output FIRE FIGHTER ENGINE
six cylinders, 5⅜-in. bore x 6-in. stroke, 817 cu. in. displ., 268
with counterbalanced and vibration dampened 3½-in. 7-bearing crankshaft; twin carburetors; precision extra high capacity bearings; overhead valves with Stellite-faced exhaust valves and seats; removable wet sleeve cylinders. Arranged for full electrical equipment and all modern accessories. Send for Bulletin 1662.

Torture tests prove built-in safety of Solar "Mars" gas turbine engines

THREE "LINES OF DEFENSE" assure absolute safety of every Solar "Mars" gas turbine engine. First, the governor holds the engine at rated speed (36,400 rpm in the unit pictured above). Second, overspeed and overtemperature shutdowns take over if the normal control system should fail. Third, *physical limitations in the engine itself* prevent ruinous overspeeds.

This built-in safety was demonstrated in a special Solar torture test of the Mars. The engine was run up with no load and with all speed and temperature controls disconnected. At 50,050 rpm, speed leveled off because of design characteristics of the compressor and fuel system, and no damage to the power plant resulted.



The 60 hp Mars is a remarkable, versatile prime mover. It weighs less than 100 lb and is smaller than a two-foot cube. It is simple, rugged, and runs on a variety of fuels.

Satisfied users are getting thousands of trouble-free hours of service from Mars gas turbine engines. Where will they fit in your business?

ENGINEERS WANTED. *Unlimited opportunities in Solar's expanding gas turbine program! Write today, giving your experience, to the address in coupon below.*

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Solar specializes in the manufacture of precision products from alloys and special metals for severe service. Solar's experience since 1927 is unduplicated in this field. Solar skills and facilities range from research, design and development through to mass production. Wherever heat, corrosion or difficult specifications are problems, Solar can help you solve them.

PLANTS. *In San Diego (photo above) and Des Moines. A total of 1,400,000 sq ft of floor space. Approximately 5,000 employees. Annual sales over $65,000,000.*

EQUIPMENT. *Production equipment for all types of metal fabrication—forming, machining, welding, brazing, casting, coating. Extensive laboratory and testing equipment. Facilities for development, prototype, limited or mass production.*

SERVICES. *Research, design, development, tooling and production engineering staffs. Experienced with all alloy steels, stainless alloys, super alloys, and titanium and its alloys. Government source inspection and Solar quality control meet rigid aircraft and commercial standards.*

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Current orders include aircraft engine and airframe parts, alloy castings, pneumatic ducting, atomic energy components. Customers include some of the most honored names among aircraft and industrial companies in the U.S. and Europe

SPECIAL PRODUCTS

Bellows. *"Sola-Flex"® bellows and expansion joints in many designs from ½ in. up to the world's largest, 28 ft in diameter.*

Gas Turbines. *Solar "Mars" 50 hp engines for auxiliary generator sets, ground carts, portable fire pumps; Solar "Jupiter" 500 hp engines in variable and constant speed models.*

Ceramic Coatings. *"Solaramic"® is the Solar trade mark for a family of coatings that protects metals from heat, corrosion, galling and abrasion.*

Controls. *Complete control systems utilizing the new Solar "Microjet"® principle for control of gas turbines, jet engines and pneumatic devices.*

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Your inquiry regarding any Solar product or service will receive prompt attention. Address
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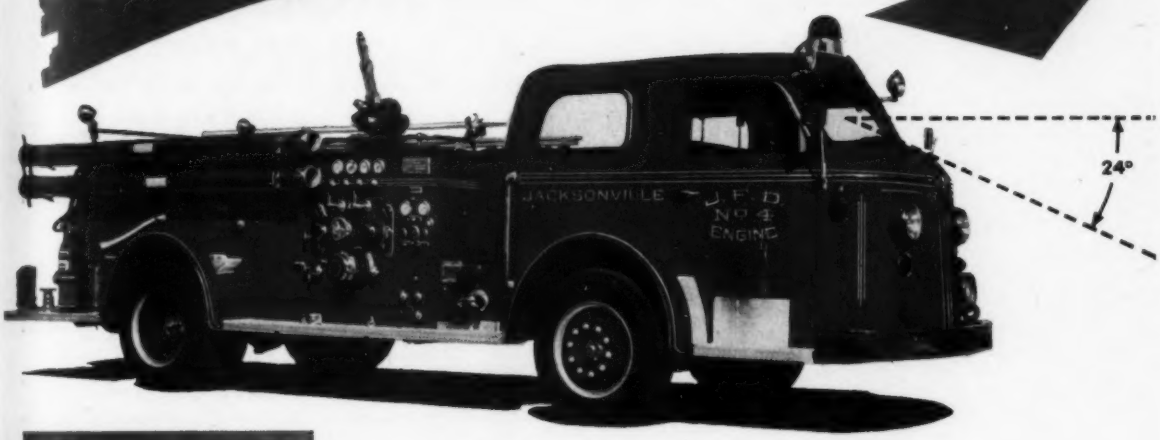
San Diego 12, California

How Well Can You See?



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FOR CAB-AHEAD-OF-ENGINE MODELS WHEN COMPARED WITH OLD-STYLE MODELS

In the 1943 survey you asked for more driver vision in the advanced fire engine to reverse the pre-war trend that was an increasing handicap to the driver. American-LaFrance now provides this improved visibility.

More vision for safer driving in heavy traffic and at street intersections.

More vision for accurately spotting the pumper at a hydrant.

More vision for getting through narrow streets and alley ways.

More safety for the men on the apparatus as the operating records of many bus companies show with the driver up front.

Specify American-LaFrance for more safety in the operation of your equipment.

Write today for your copy of the EXTRA VALUE Book . . . at no obligation.

AMERICAN-LA FRANCE-FOAMITE CORPORATION

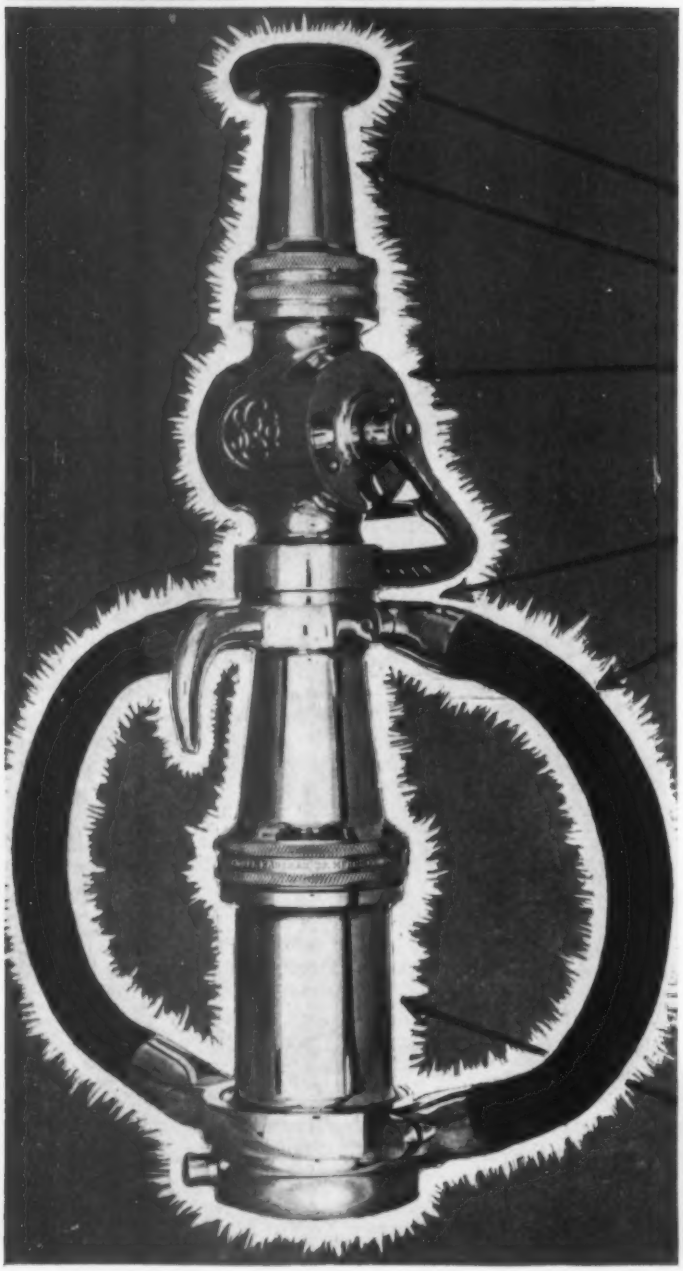
ELMIRA, NEW YORK, U. S. A.

LA FRANCE FIRE ENGINE and FOAMITE LIMITED

TORONTO, 9, ONTARIO, CANADA

the NEW Eastman

MODEL 55 PERFECTION PLAYPIPE



Rubber bumper to protect tips from possible damage.

Tips — 3/4" to 1 1/8" designed and finished to give maximum efficiency under high pressures. One tip furnished with playpipe.

New EASTMAN SHUT-OFF—full 1 1/2" waterways — honed to high finish to insure full flow of water.

Roller bearing swivels give complete freedom of action in handling.

Heavy rubber handles with steel core for maximum strength and wear.

IMPORTANT TO YOU

is the fact that these playpipes are manufactured of the very finest bronze—in either polished brass or chrome plated finish—and investigation before you buy will show you that you can't beat them for price either.

Eastman Stream Straightener to give you solid streams at high pressures.

Write for further data

SAMUEL EASTMAN CO., Inc.

CONCORD, NEW HAMPSHIRE

CONTACT *your fire equipment dealer for demonstration.*

Five More E&J Resuscitators For Boston

Commissioner Francis X. Cotter

Asst. Chief Walter E. Crouch

In the progressive development of the Boston Fire Department for greater efficiency and community service, E&J Resuscitators continue to play a vitally important part. Under the leadership of Commissioner Francis X. Cotter and Assistant Chief Walter E. Crouch, five additional portable models have recently been placed in service. Five new Booster Companies using this equipment will provide even more extensive coverage and greater life-saving protection throughout the city than heretofore available.

The decision to provide additional E&J Resuscitators for emergency life-saving was based on the outstanding record of success established with E&J Resuscitators in the Department over a period of almost twenty years.

Lt. John Fronzillo, aide to Comm. George Hellen, Comm. Cotter, Asst. Chief Crouch, and aide to Asst. Chief James Hoban watch demonstration of five new E&J Resuscitators by Capt. K. C. Arnold and Hoseman Frederick Toner.

A FREE DEMONSTRATION in your own Department is the surest way to get complete information on Resuscitator safety, effectiveness, medical acceptance, exact details of operation and construction and any other data you may want. If your Budget is s-t-r-e-t-c-h-e-d, the E&J Man can give you complete information on highly successful fund-raising methods and even supply a complete fund-raising Kit on free loan. To schedule your free demonstration, or request literature, just write or wire to Dept. 549-9 at the address below.

"First Name in Resuscitators"

E & J MANUFACTURING COMPANY

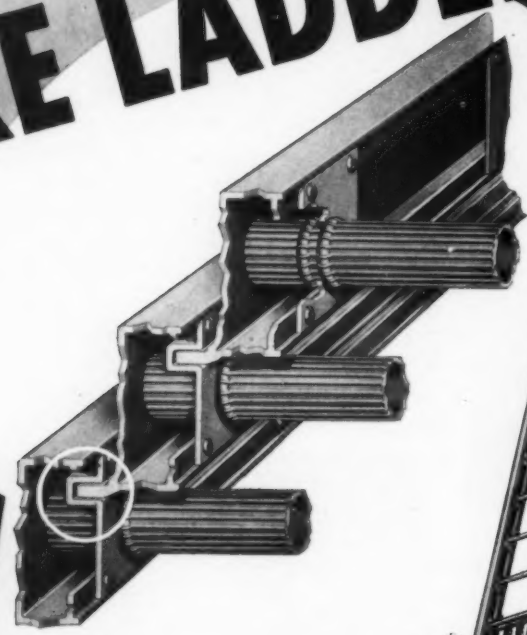
100 East Graham Place • Burbank, California

THE SPOTLIGHT IS ON THIS NEW

DUO Safety FIRE LADDER

SERIES 900-A

WITH EXCLUSIVE TONGUE AND GROOVE CONSTRUCTION



A BRAND NEW DESIGN IN THE FAMOUS DUO-SAFETY LINE

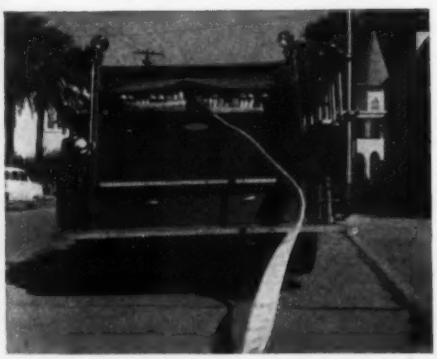
. . . and featured in the fire ladder spotlight is this new, outstanding development in aluminum ladder construction. It's Duo Safety's latest addition — the 900-A Series Fire Ladder which combines the strength and safety of Channel Rail construction with an exclusive tongue and groove design that firmly and securely locks the sections together without hooks or brackets. This outstanding structural arrangement prevents jack-knifing of the ladder — and — eliminates the possibility of finger-pinching! Series 900-A will add safety and dependability to your use of fire ladders — Write today for catalog page on this fine new ladder and others in the complete Duo-Safety line.

DUO-SAFETY LADDER CORPORATION

809 Ninth Street • Oshkosh, Wisconsin

Florida Fire Dept. Reports:

Lighter to carry . . . easier to coil, hose made with "Dacron"* is strong . . . flexible



Hose made with "Dacron" makes fast hose laying easier for the Ocala Fire Dept., because it's light in weight and very flexible. Coiling and racking are easier, too.

*REG. U.S. PAT. OFF.

"I like hose reinforced with 'Dacron'," says Chief T. B. Sexton of the Ocala Fire Dept., Florida, "because it's light in weight, rolls up more compactly, and because more of this type hose can be carried on the apparatus." Above, two members of the department show how hose made with "Dacron" is easier to handle in action . . . easier to coil and rack when the job is done.

Fire departments all over the country are reporting better performance from hose made with "Dacron" polyester fiber. This man-made fiber is used as the load-carrying "filling" cord that reinforces the hose . . . permits a hose that's light and flexible, yet stronger than ordinary hose of the same diameter. "Dacron" maintains its strength when wet . . . is not subject to attack by mildew.

Two years of field testing under all conditions conclusively prove the superiority of hose made with "Dacron". Du Pont makes only the "Dacron" fiber . . . does not manufacture hose. Fire hose made with "Dacron" is produced by many of the leading fire-hose manufacturers. Order it from your supplier next time you need hose. E. I. du Pont de Nemours & Co. (Inc.), Textile Fibers Department, Wilmington 98, Delaware.

ADVANTAGES OF FIRE HOSE MADE WITH "DACRON":

- Lighter
- Stronger
- More flexible
- Cuts loading time
- Saves space

DACRON

POLYESTER FIBER

DU PONT

REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

Announcing . . . THE SEAGRAVE COMMERCIAL AERIAL LADDER

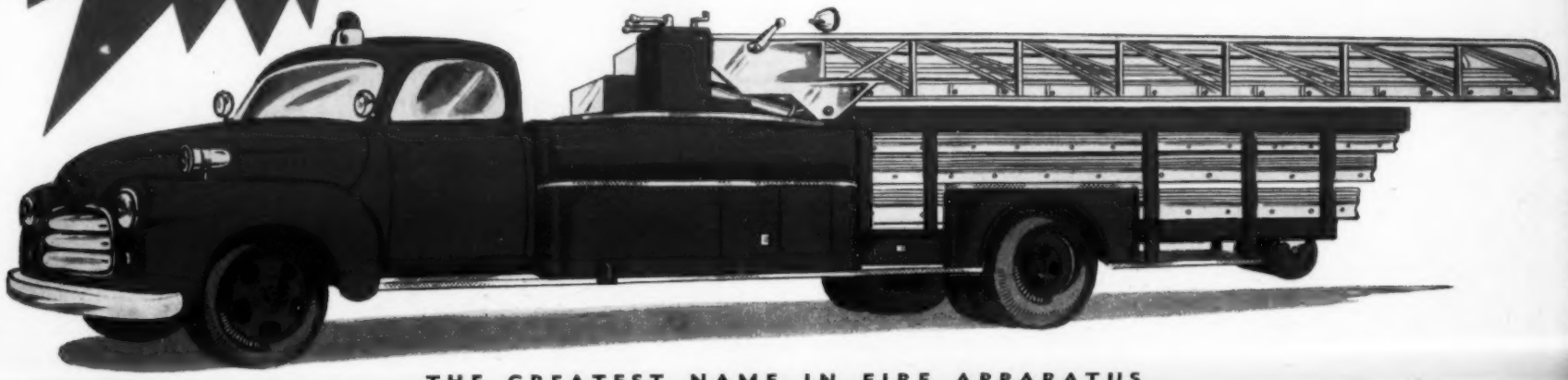
SEAGRAVE LEADS AGAIN

The history of Seagrave has been a long line of firsts in fire apparatus design and construction, among which was the first all-steel aerial ladder in America. Seagrave again demonstrates its leadership by producing a 65 foot all-steel aerial ladder mounted on a heavy-duty commercial truck chassis of your own choosing. This fills the urgent need for an aerial ladder at an economical price. Now smaller cities, volunteer fire departments and industrial fire services can have a Seagrave All-Steel Aerial Ladder truck with a completely new one-hundred percent hydraulic hoisting mechanism and ladder. All operations in the Standard Seagrave Aerial Ladder have been incorporated in this new design. This aerial ladder, hoisting mechanism and body are all Seagrave and built in the Seagrave factory making possible the greatly reduced price. You will want to learn more about the most economically priced aerial ladder in the fire apparatus industry.

WRITE TODAY FOR COMPLETE INFORMATION

THE SEAGRAVE CORPORATION
COLUMBUS, OHIO

Bickle-Seagrave Ltd., Woodstock, Ontario



THE GREATEST NAME IN FIRE APPARATUS

"RIDING HIGH"

The carrying harness on a DRAGON is mounted so the unit rides high on the operator's back. There is no chance of it slipping and bouncing on his hips or interfering with his walking. The DRAGON always rides high and cannot throw the operator off balance.

DRAGON FIRE PUMPS HAVE MANY DESIRABLE FEATURES:

No Wasted Water!—A Dragon Fire Pump directs a continuous spray or stream on the EXACT SPOT! Therefore the water does more work with less waste.

Ease of operation!—When using a Dragon Fire Pump the hands can be removed from the shut-off or pump lever at any time, permitting the full use of the hands to use other tools, rakes or shovels.

Finest construction! A Dragon Fire Pump is built to last for years. The cold rolled steel units is hot dipped galvanized after fabrication, insuring complete surface protection against rust. It can be stored indefinitely, yet ready for immediate use, because there is no pump packing to dry out or to be replaced.

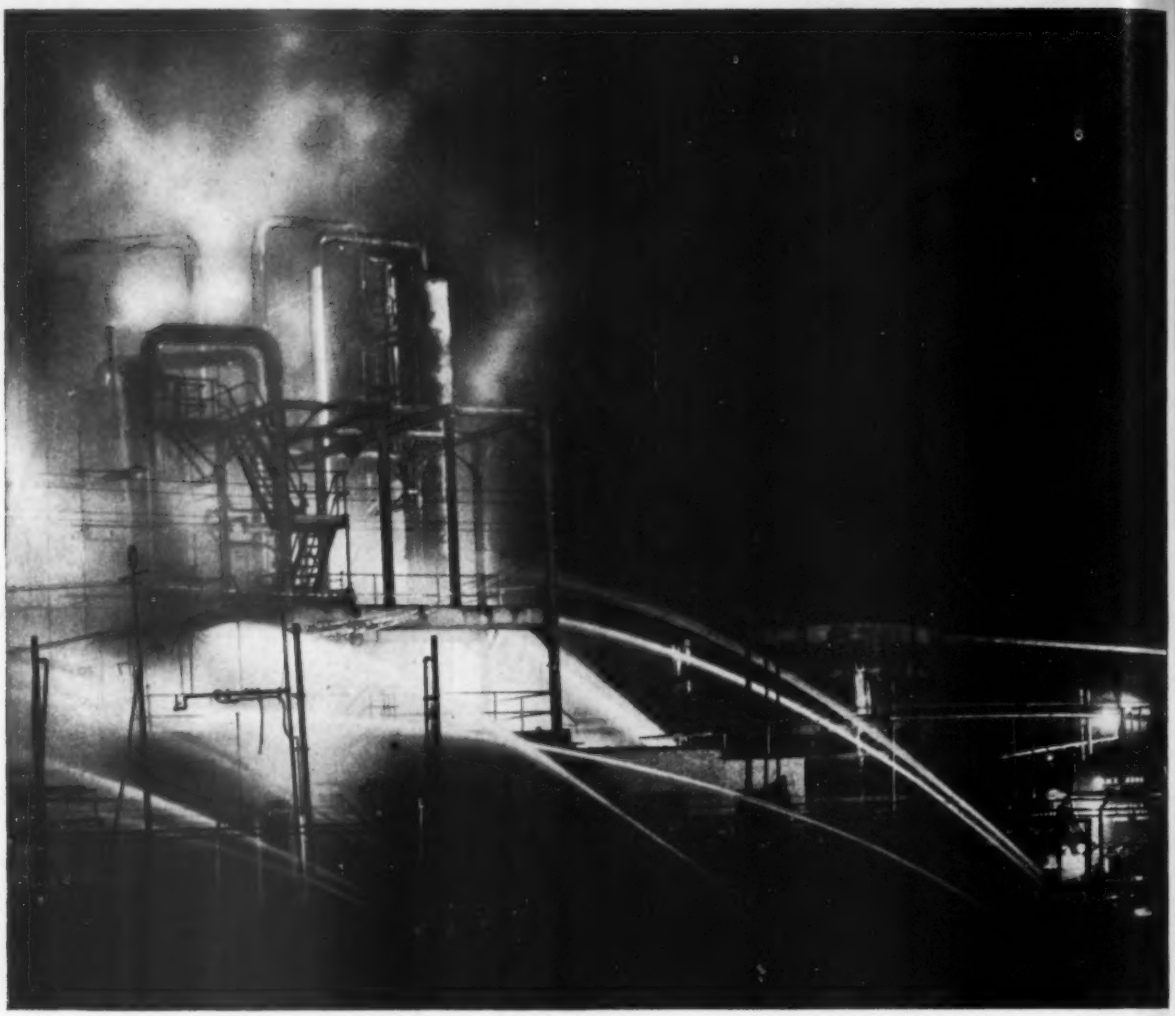
DRAGON FIRE PUMPS meet the requirements of the Underwriters' Laboratories, Inc., and can be supplied with their label of inspection attached.

DRAGON FIRE PUMPS
Now Available in 2 Models

- No. 150-S—Stainless Steel Tank
- No. 150-G—Galvanized Tank (Cold Rolled Steel-Hot Dipped Galvanized after Fabrication)
- All units equipped w/ brass pumps, all Tanks are seam welded
- Capacity of Tank—5 Gallons

Valuable Distributorships available, write for details

PARCO PRODUCTS COMPANY
PENNSBURG, PA.



Oil, Abrasion, Heat Won't Hurt Remarkable Petrochem Fire Hose

Here's a fire hose that was specifically designed for the oil industry—Petrochem . . . absolutely oil-resistant, inside and out. It has many other advantages, too . . . it's 50% lighter, yet takes 50% more pressure than conventional, oil-resistant fire hose. It's so flexible that it can be tied in knots without damage. It can be easily coiled or folded for minimum storage. Petrochem is strong and abrasion-resistant . . . will give superlative performance under any refinery conditions, for pressures up to 500 pounds and temperatures up to 300°F.

Tube is of Neoprene . . . jacket of Dacron yarn, impregnated with black Neoprene . . . means complete oil-resistance, inside or out.

We also manufacture a complete line of industrial rubber products: belting, hose, packing and moulded rubber of every construction for every need. *Through your Quaker and Quaker Pioneer distributor* our research and engineering services are always available to help you solve any industrial rubber problem. *Write for free folder and name of nearest distributor.*

QUAKER RUBBER CORPORATION
Philadelphia 24, Pennsylvania

HKP

QUAKER PIONEER RUBBER MILLS
San Francisco 7, California

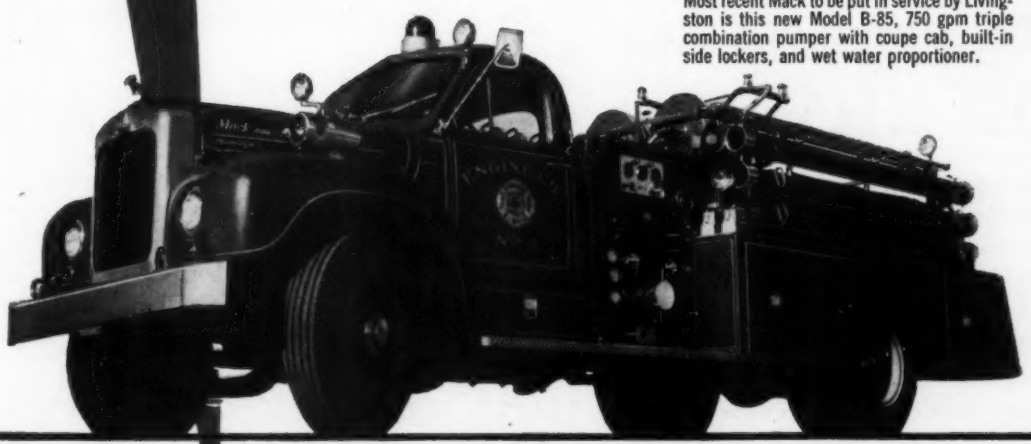
27 years young
AND STILL RARIN' TO GO

Delivered in 1928 to the town of Livingston, N. J., this Model AK Mack 750 gpm triple combination pumper was among the first fire apparatus to boast four wheel brakes and pneumatic tires. She still rolls on the toughest jobs.

There's a world of difference between this 1928 Mack pumper and her modern successor pictured below. But there's one thing both have in common. It's Mack Bulldog tenacity—the refusal to quit under even the toughest going.

By all rights, "Snow White"—as the elder Mack has been called since the days when she sported a coat of that color—should be ready to hang up her hard suctions and turn out to pasture. But instead, she's being transferred to another section of Livingston to help protect that community's fast-growing outskirts.

No secret why thousands of communities of all sizes have come to expect the best from Macks. Nearly fifty years of service have proved that there's no compromise with quality in Macks . . . because to Mack, only the best is good enough for the fire services.



Most recent Mack to be put in service by Livingston is this new Model B-85, 750 gpm triple combination pumper with coupe cab, built-in side lockers, and wet water proportioner.

MACK MANUFACTURING CORPORATION
Empire State Bldg., New York 1, N. Y.

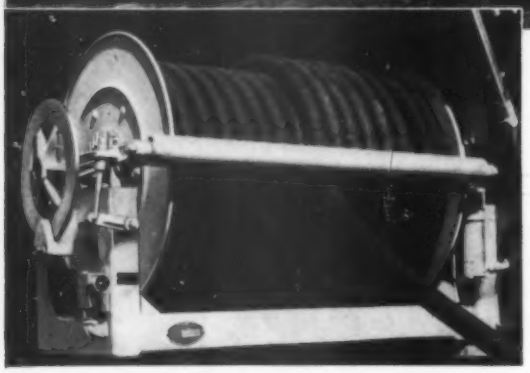
2955

TRIPLE COMBINATION PUMPERS—500 TO 1250 GPM . . . SQUAD AND HOSE CARS . . . 65, 75 AND 85 FOOT AERIALS AND COMBINATION LADDER TRUCKS

Designed for Emergencies

DEPENDABLE HANNAY HOSE REELS

U.S. Air Force photograph



Designed and built by firemen for firemen, HANNAY Hose Reels are functionally correct in every detail of construction . . . always dependable in any emergency! That is why both civilian and military fire chiefs insist on HANNAY.

When *you* need dependable hose reels, either for standard or special applications, always specify HANNAY . . . built to do a better job in fire fighting, in industry, in national defense.

HANNAY Electric Drive HOSE REELS WATER and VAPOR RESISTANT • EXPLOSION-PROOF

Sealed against foam, fog, fumes and water, the explosion-proof rewind motor has sealed push-button control . . . no gears to shift, no clutch to engage. Hose Reels like this one, custom-built by HANNAY for military service, are standard equipment on the new American LaFrance Foamite Corp. Crash Truck shown here. This HANNAY Hose Reel is shown above in use, as Air Force Fire Fighters spray foam on burning aircraft. They, too, depend on HANNAY in emergencies!

HANNAY
HOSE REELS
CLIFFORD B. HANNAY & SON, Inc.
WESTERLO, NEW YORK

© 1955 C.B.H.&S., Inc.

HANNAY ... *Greatest Name in Hose Reels*

Rockwood Nozzle SG-60 is of lightweight, durable, aluminum alloy with high-polished finish. Chrome plated bronze ball valve with synthetic rubber seat. All gaskets are synthetic rubber, all other parts are bronze, brass or stainless steel.

One nozzle fights fire 5 ways

This is the WaterFOG nozzle you can use to fight fire in 5 different ways.

It's Rockwood's "ALL-PURPOSE" SG-60 that makes unnecessary most special purpose nozzles. It discharges fire quenching High Velocity WaterFOG, Low Velocity WaterFOG (with applicator), FogFOAM or a solid stream of water or FOAM.

This Nozzle is designed to put out Class A, B or C fires faster, safer and more economically. A quick shift of the handle instantly provides the right type of discharge for any type of firefighting job.

Put this efficient, versatile Rockwood SG-60 Nozzle to work for you.

ROCKWOOD

ROCKWOOD SPRINKLER COMPANY

Engineers Water . . . to Cut Fire Losses

High Velocity WaterFOG's solid cone pattern gives firefighter adequate protection from heat while quickly quenching blaze.

Low Velocity WaterFOG discharged with special attachment spreads umbrella pattern, smothering fire without causing turbulence to flammables.

FF extension discharging FogFOAM. Wide angle makes it possible to cover large areas at one time.

Shift to long range straight stream of water or FOAM can be made quickly and positively when required.

SEND FOR THIS INFORMATIVE BOOKLET

ROCKWOOD SPRINKLER COMPANY
Portable Fire Protection Division
262 Harlow Street
Worcester 5, Mass.

Please send me your illustrated booklet No. 3-20-8 on type SG-60 WaterFOG Nozzle and other Rockwood firefighting equipment.

Name_____
Title_____
Company_____
Street_____
City_____ Zone____ State_____

ALL TYPES...ANY CLASS FIRE!

Since different fire hazards require different types of fire extinguishers, PYRENE—C-O-TWO manufactures all types . . . the finest and most complete line on the market today.

When doing business with PYRENE—C-O-TWO, you receive unbiased advice on what is best for your particular fire hazards, whether class A, B or C. Also, there is a well-rounded sales engineering organization having nation-wide representation to render top quality service wherever you're located.

Don't take unnecessary chances . . . the extensive fire protection experience of PYRENE—C-O-TWO over the years is at your disposal without obligation. Get complete facts now!

PYRENE — C-O-TWO

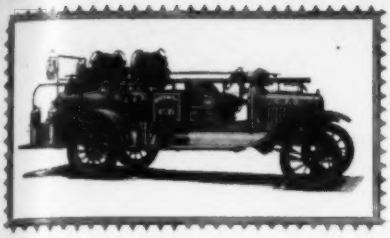
NEWARK 1 • NEW JERSEY

Sales and Service in the Principal Cities of United States and Canada

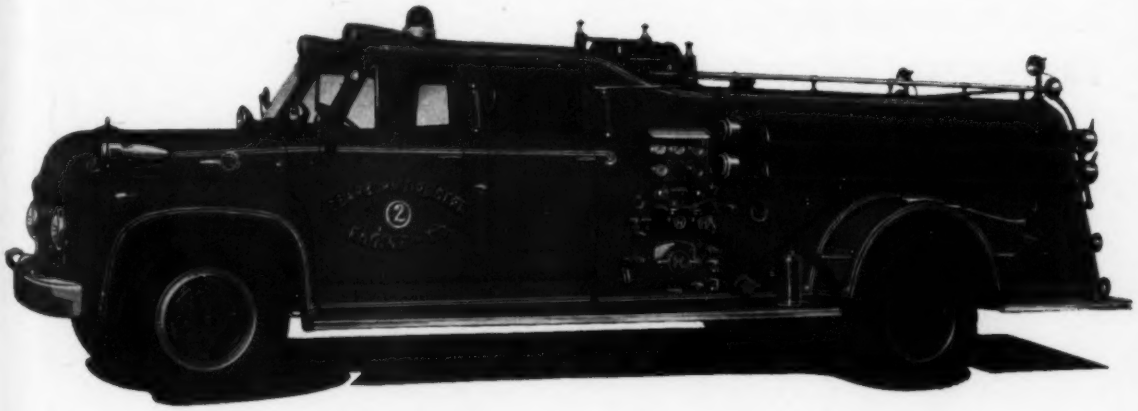
COMPLETE FIRE PROTECTION

portable fire extinguishers . . . built-in fire detecting and fire extinguishing systems

CARBON DIOXIDE • DRY CHEMICAL • VAPORIZING LIQUID • SODA-ACID • WATER • CHEMICAL FOAM • AIR FOAM



THEN and now it's HOWE



Finest in fire-fighting apparatus for four generations

THERE have been some changes made! Compare the pioneer HOWE "fire wagon" on Model T chassis to the modern Howe Combination Pumper, built on a Ford F-800 BIG JOB chassis . . . But be assured the pioneer truck was the most up-to-date of its day, saved man power, cut fire losses. As has every piece of Howe Fire Apparatus produced since the company's founding in 1872, four generations ago in the Howe family . . . Like Ford, *Howe pumpers are still built by Howe men*, active in production, management, design, directing able executives and experienced craftsmen who help maintain Howe leadership . . . Although a motorized pumper was not offered until 1908, experiments began in the Howe factory in 1904, fifty years ago. Even before that, gasoline motors were utilized by Howe to operate piston and rotary type pumps in horse-drawn apparatus . . . HOWE has always been in the lead in experimenting with the new, proving its worth, and then producing it. That is why you can depend upon HOWE Fire Apparatus to be the best obtainable . . . That is why progressive fire departments like Dearborn's look to HOWE for the finest in modern fire-fighting apparatus.

HOWE

HOWE

MEMBER FAM
(Fire Apparatus Manufacturers Association)

"dependable fire apparatus since 1872"

FIRE APPARATUS COMPANY

Dept. FE2, 1400 W. 22nd St., Anderson, Ind., U. S. A.

Four new HOWE Combination Pumpers recently delivered to the City of Dearborn, Mich.

2-WAY RADIO BLANKETS WAYNE COUNTY

Radio-Controlled Mutual Aid Has Improved County-Wide Fire Protection

● Chief John Stephan coordinates county-wide fire fighting at mobile headquarters in Lyons, New York.

● Volunteers at Palmyra, New York call direct from the fire scene for assistance from nearby town.

2-WAY MOBILE RADIO

FREQUENCY STABILITY & SELECTIVITY
guaranteed for life!

Here is a situation where 27 volunteer fire departments banded together under one G-E mobile radio system. The result? Every town in their 607-square mile area enjoys vastly-improved fire protection. For emergency and routine calls . . . for civil defense drills . . . General Electric 2-way radio is the communication channel that coordinates all activities. It saves minutes, miles, and operating money in dispatching rolling apparatus to the scene of action . . . wherever it may be.

G-E mobile radio was selected after comparing routine and emergency performance standards on all makes. Because of low initial cost and bedrock maintenance, G-E won the bid. You can duplicate Wayne County's success with volunteer groups in *your* county. Contact Chief Stephan for a firsthand report that proves G-E is your best buy! Or, write us direct: *General Electric Company, Section X5925, Communications Equipment, Electronics Park, Syracuse, New York.*

Progress Is Our Most Important Product

GENERAL ELECTRIC

Beall Research and Engineering Corp.

announces: CM-7

CM-7 (Azeotropic Chlormethanes) is a new vaporizing liquid fire extinguishing agent with properties that command the interest of everyone in the fire-fighting field.

This outstanding extinguishant, developed by Beall Research and Engineering Corp. after extensive laboratory and field studies, is a remarkable achievement in the science of combatting loss of property and lives caused by fire.

Facts you should know about... CM-7

...the new vaporizing liquid fire extinguishing agents

The by-products of CM-7 in combustion are of the non-toxic type and, in themselves, constitute effective fire extinguishing agents.

Carbon monoxide is completely inhibited when CM-7 fluid or vapor is adequately applied to fire.

Phosgene gas cannot result from the application of CM-7 to a fire, whether the application be in liquid or vapor form.

CM-7 produces 10% to 20% more vapor than carbon tetrachloride.

Vaporizes quickly, due to low average boiling point (152.5° F.).

CM-7 does not freeze at minus 50°F.

CM-7 penetrates burning embers of Class A fires more deeply than any other vaporizing liquid on the market today.

CM-7 fights fire in three phases. When CM-7 comes in contact with fire, or, the heat produced from fire, a "flash fog" is released before the fluid reaches its average boiling point of 152.5° F. At approximately 152° F., the heat vaporizes the bulk of the CM-7 fluid into a dense penetrating fire extinguishing fog. A portion of the CM-7 remains unvaporized at 152.5° F. This vaporizes at a higher temperature which produces a "residual fog" should re-ignition or flash back of the fire take place.

CM-7 is marketed exclusively by* RED COMET, INC., Littleton, Colorado, *in their "fast action" fire extinguishers.

BEALL Research and Engineering Corporation

700 American Bldg., Washington, D. C.

For additional information, write to
Dept. 361-P, RED COMET, INC., Red Comet Bldg., Littleton, Colorado
***Member:* National Fire Protection Association**

MIDWESTERN

Safety Clothing for FIREMEN

The Original

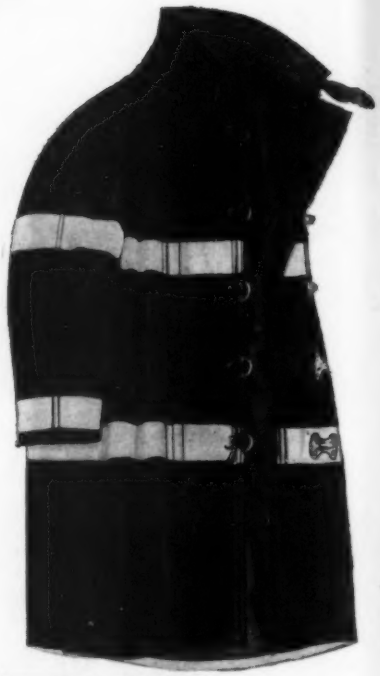
STRIPED SAFETY COAT

- Greater Visibility
- Exclusive Fabric Material
- Exclusive Safety Features
- Superior Design

The striped safety coat for firemen is an *original* MIDWESTERN development . . . featuring highly visible yellow stripes which are *rubberized as part of the material* . . . not painted, glued or sewed on!

Service records prove that Midwestern Striped Safety Coats withstand years of rugged duty . . . offer high safety visibility during the entire life of the garment. Designed exclusively for firemen . . . every detail in construction adds to the service, comfort, protection and long wear of the garment.

As an accident prevention measure, more and more fire departments are specifying Midwestern Striped Safety Coats as standard equipment. There are many imitations but *no substitute* for the workmanship, built-in comfort and longer wear you receive by specifying MIDWESTERN.



MIDWESTERN COMBINATION SAFETY SUIT

The Midwestern Safety Coat and Bunker Pants combination is preferred by many larger municipal departments. Detachable wool linings. Close fitting collar and elastic inner sleeve on coat keep out sparks and water. Pants have double-stitched seams, reinforcing rivets at points of strain, large, roomy pocket space.

QUALITY UNEXCELLED

In our vast selection of materials you will find the type of fabric exactly suited to your climate and needs. For complete information, have your Midwestern dealer show you our complete line. A letter to the factory will also bring you literature and material samples for your inspection.

NONE GENUINE WITHOUT THIS TRADE MARK

MIDWESTERN SAFETY MFG. CO. Mackinaw, Illinois

Manufacturers of the Famous **MACKINAW Safety Coats**

Introducing

WOOSTER BRASS

MANGA-FORGE

FIRE HOSE COUPLINGS

Strong

Light

Durable

A DROP FORGED COUPLING ENGINEERED TO HIGH PRESSURE LIGHTWEIGHT AND STANDARD FIRE HOSE SPECIFICATIONS

What are the requirements of an ideal fire hose coupling? We set out to find the answers to that question by asking fire chiefs and fire hose manufacturers.

Those answers are now built into the new Manga-Forge Coupling after nearly two years of development and exhaustive testing. This coupling more than meets all the requirements of the latest developments in lightweight, heavy duty and standard fire hose by combining the strength of forged manganese with ring reinforcement in the expansion area. The Manga-Forge Coupling is structurally engineered for maximum strength and safety with minimum weight. Design features prevent this coupling from going "out of round" under impact and stress. It will not slip, creep, or blow off at any fire pump pressure.

You can depend on Manga-Forge Fire Hose Couplings to give you better service and longer service. Specify them on all new hose orders.

FOR GREATER STRENGTH

Forged from a special manganese-bronze alloy for strength, durability and corrosion resistance. Extra heavy in the expansion area with a reinforcing ring added in the middle of the hose bowl.

FOR LIGHTER WEIGHT

Lighter than ordinary couplings. Weight is reduced to a minimum for easiest handling, yet structural design gives this coupling a wide margin of strength to sustain shock, stress and impact.

FOR ADDED PROTECTION

Reinforcing ring protects those parts of the coupling most susceptible to damage — the threads and the swivel when hose is either coupled or uncoupled.

COUPLING DESCRIPTION FOR INCLUDING IN YOUR HOSE SPECIFICATIONS

Couplings to be forged from a manganese-bronze alloy, with reinforcing rings located at the mid-section of the hose bowls. Three rocker-type lugs on the male and swivel with Higbee indicator.

WOOSTER BRASS

A DIVISION OF THE FYR-FYTER COMPANY

The City Fathers

sleep sounder . . .

now that they have

REPUBLIC MUNICIPAL FIRE HOSE

on the job

K-101
Champion:Dacron Filler
Double Jacket—600# Test Pressure

Municipal Fire Hose is constructed with specially selected Dacron or cotton yarns circular woven into strong reinforcing jackets for maximum bursting pressures and resistance to wear. Rubber linings are compounded for long service, wear and flexibility.

All brands have Provar Processing as standard construction for mildew prevention. Wax treatment—for protection against moisture absorption, adhesion of ice and freezing to ground during cold weather—can be supplied when specified.

All brands are flat-cured as standard procedure, permitting easier handling and storage of more footage.

Your inquiry is invited, and complete information will be sent promptly.

K-102
Tower:Dacron Filler
Double Jacket—
400# Test Pressure

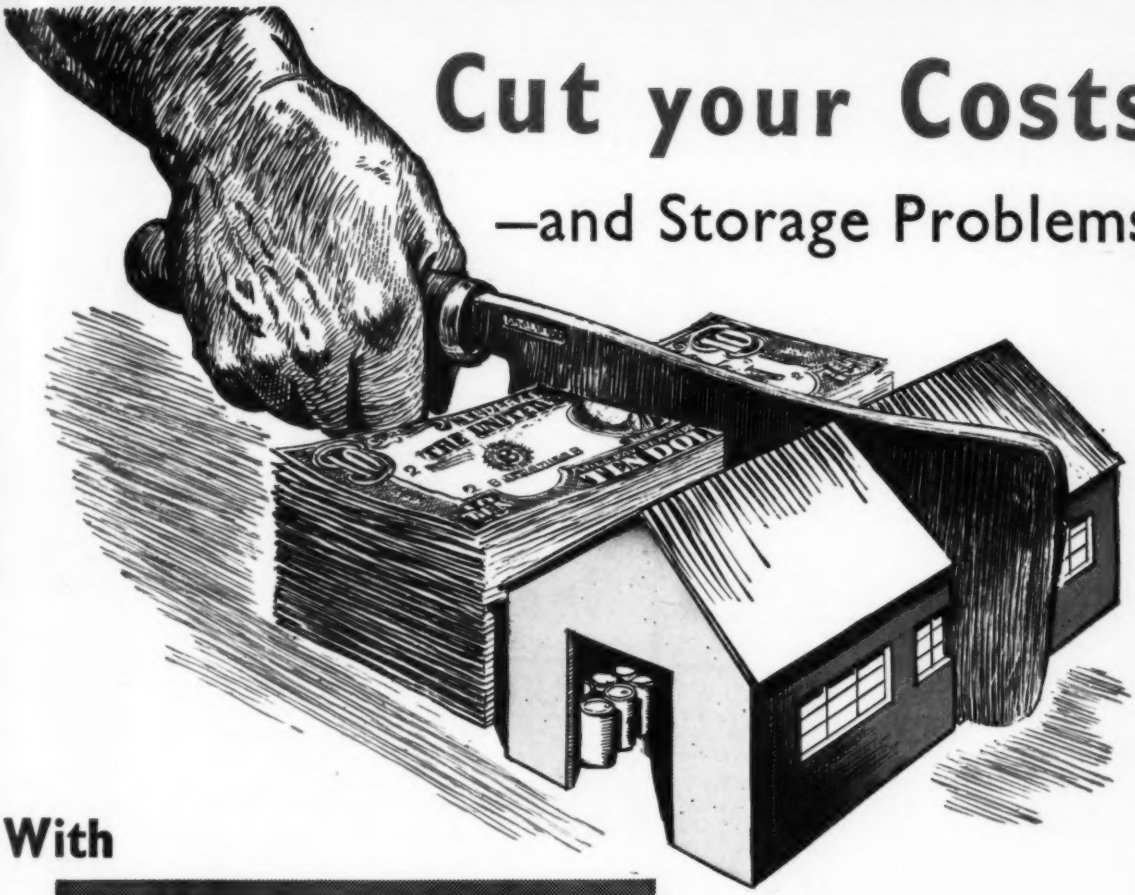
K-122
Chariot:Cotton Filler
Double Jacket—
400# Test Pressure

K-127
Target:Cotton Filler
Double Jacket—
400# Test Pressure

REPUBLIC RUBBER DIVISION

LEE RUBBER & TIRE CORPORATION, YOUNGSTOWN 1, OHIO

INDUSTRIAL RUBBER PRODUCTS



Cut your Costs

—and Storage Problems

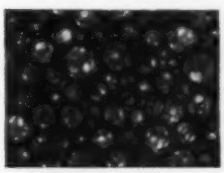
With

Nicerol

3% Foam Compound

THREE GALLONS of Nicerol and 100 gallons of water will produce over 1,000 gallons of Nicerol foam through a mechanical air pump. Changing and replacing strainers is reduced to a minimum, as Nicerol does not form sludge even after long storage. Its pH of 6·8 to 7·3 indicates neutrality, thus ensuring freedom from corrosion in valuable equipment, and in storage drums. A less obvious factor in Nicerol economy is its speed of effective action. Nicerol saved several hundred million dollars in World War II, and is still supplied under contract to several Navies and Air Forces throughout the World.

Magnification X 30



Here's why Nicerol Air Foam gives greater heat resistance

The minute closely-knit bubbles retain the maximum water content in a foam that is both adhesive and cohesive. This is the reason that air foam made from Nicerol resists fire breakdown, puts out more fire faster, and definitely outlasts the fire to prevent flashbacks.

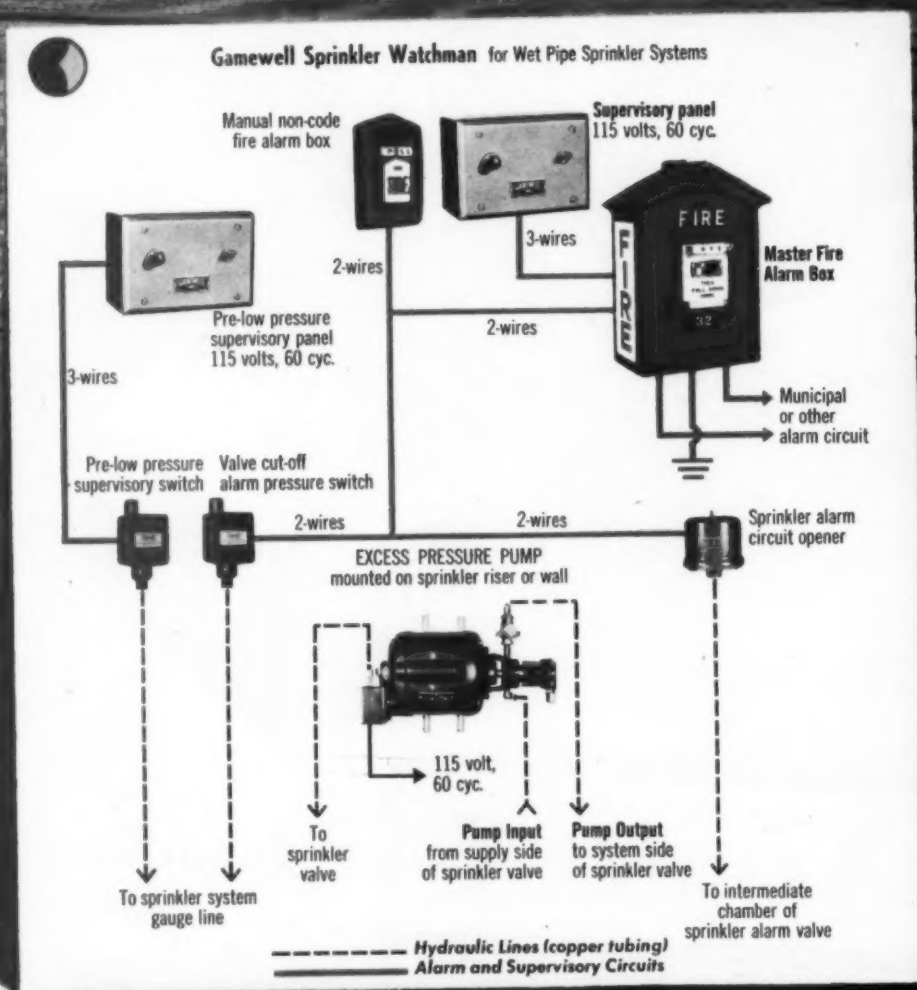
***Nicerol*—THE LONGER LASTING AIR FOAM**

Keeps longer in storage — Puts out more fire faster — Outlasts the fire

INQUIRIES INVITED FROM DISTRIBUTORS AS WELL AS USERS. FULL TECHNICAL AND COMMERCIAL DETAILS AVAILABLE FROM

GEORGE T. REYNOLDS & ASSOCIATES, P.O. BOX 395, THORNWOOD, N.Y., U.S.A.

BRITISH FIRE EXTINGUISHERS LTD., 222 SIMCOE ST., TORONTO 2B, ONT., CANADA


Gamewell Sprinkler Watchman for Wet Pipe Sprinkler Systems
Manual non-code fire alarm box
Supervisory panel 115 volts, 60 cyc.
3-wires
2-wires
FIRE
Master Fire Alarm Box
Pre-low pressure supervisory panel 115 volts, 60 cyc.
2-wires
3-wires
Municipal or other alarm circuit
Pre-low pressure supervisory switch
Valve cut-off alarm pressure switch
2-wires
2-wires
Sprinkler alarm circuit opener
EXCESS PRESSURE PUMP mounted on sprinkler riser or wall
115 volt, 60 cyc.
To sprinkler valve
Pump Input from supply side of sprinkler valve
Pump Output to system side of sprinkler valve
To sprinkler system gauge line
To intermediate chamber of sprinkler alarm valve
Hydraulic Lines (copper tubing)
Alarm and Supervisory Circuits

The GAMEWELL Sprinkler Watchman
lets you "mechanize" sprinkler systems

The sprinkler system that *automatically calls the Municipal Fire Department* keeps fire and water damage low.

To "mechanize" a sprinkler system . . . to make it call the Department whenever a head "goes off", you merely specify that the Gamewell Sprinkler Watchman be installed as part of the sprinkler system.

Write for additional information about the Gamewell Sprinkler Watchman.

GAMEWELL®

THE GAMEWELL COMPANY
Newton Upper Falls 64, Mass.

FIRE ALARM SYSTEMS

The Box Is Positive — Reduces Human Error

FIRE ENGINEERING

FEBRUARY, 1955 VOL. 108, NO. 2

With the Editor

There's A Major Task To Be Done Here! They are not pleasant pictures, the ones presented in the article entitled "Fire Fatalities Among Children Show Alarming Growth" appearing elsewhere in this issue. But then, there's nothing pleasant about death by fire, whether it involves the young and innocent or grownups.

That father and mother of Franklin, Mass., who watched five of their six children burn to death in a blazing bedroom of their little home, only a few hours after they had returned from a visit to nearby Attleboro to see the lighting of the Christmas lights on the La Salette Shrine, how did they feel? What of their agony as they heard the pitiful voices calling to them for help? *"I could see them through the flames. I could hear them calling to me," said the distraught father, "but I couldn't do a thing!"*

Even veteran fire fighters, who over the years have had to develop an emotional defense against the wanton destruction by fire of children, as they encounter it in their daily struggles with the relentless foe, are sickened by the unending, ceaseless slaughter of helpless little ones—a tragic toll that now exceeds 4,000 dead and many times that number maimed and injured annually.

The pity of it all is that these consuming fires are so impersonal, so unrestricted. They know no class, color or creed. They strike at a hovel in Hartford; a cottage in Camden; a shack in Chicago; a mansion in Maine. They are no respectors of persons, places or periods. They know no time. Only one thing is certain: that is the uncertainty where they will strike next—who will be the next victim?

There is enough grief, and to spare, in the wiping out of adults by fire, but grownups are at least supposed to know better; to take care of themselves; to stand some chance of safety. But children, who depend upon their elders—how can we justify their untimely and dreadful end?

What is it that impels loving parents to leave home and progeny unguarded, unwatched, with death standing by and temptation in the form of matches, of lighted portable heaters close at hand?

How is it that men and women who know better gamble with their own lives and those of their loved ones, with all the odds against them, by ignoring even the most elementary fire safety precautions? How is it that landlords who love their own children and pray for their safety, are so indifferent and callous to the safety of others' offspring—who for one reason or another, may be forced to occupy the sub-standard, hazardous hovels and makeshift abodes on which they collect rent?

And how does it happen that with all the ghastly evidence before them, lawmakers and law enforcement officials of our nation sidestep the duty that is plainly theirs, to initiate proper fire safety measures to prevent these tragedies, and to cooperate in their enforcement?

What is wrong with a nation that can go all weepy over an affliction that may claim the lives of a few hundred little victims in a year, but which can't even develop righteous indignation over the senseless slaughter, in the most dreadful way, by fire of over 4,000 children in the same period?

We have no quarrel with American generosity and we extoll those who give liberally of time and money to cure the world's ills. But we would like to see just a little of that consideration and cooperation expended on minimizing the tragedies and suffering, particularly among children, due to deadly fire year after year.

The pity of it is that it would take so little to accomplish so much toward such a worthy objective. The nation's fire fighters have shown, are showing, the way, but they cannot work alone. There must be an aroused public interest and a cooperating civic consciousness.

To help to arouse and inspire that interest, and to provide it forthright facts to stimulate action, FIRE ENGINEERING, with the cooperation of the International Association of Fire Chiefs, features in this issue a special study, which probes into causes and effects, tells what is being done by the nation's fire service, and suggests measures for further efforts. It is recommended "must" reading for not only the fire service but for civic authorities —and parents, everywhere.

Fred Shepard

Fire Fatalities Among Children Show Alarming Growth

A Study Into Cause and Effect . . . What is Being Done by the Fire Service . . . What Should be Done

By ROI B. WOOLLEY
Assistant Editor

Editor's Note: This is not an engineering study. It is not a carefully documented report. Yet is is based entirely on fact, not fiction. It purposely has been prepared in narrative style for public as well as fire service consumption.

The editors are indebted to Jay W. Stevens, Executive Secretary of the International Association of Fire Chiefs, Chairman of the organization's Fire Prevention Committee, for information concerning the efforts of the fire service to lower the frightening casualties among children and infants as a result of fire. At the same time, this Journal congratulates Chief Stevens, and the Officers and Board of Directors, and progressive members of the Association, on taking the lead in the very worthy endeavor to "Save the Lives of 4,000 Children Annually."

Grateful acknowledgement is also extended to the many fire chiefs who have contributed to the information contained in this study, particularly, the data on oil burners and floor furnaces.

IN 1953, the last year for which complete casualty records are available at this writing, fire caused 12,360 deaths in the United States and Canada, according to published estimates of the National Fire Protection Association.

Further evidence of the seriousness of fire as a killer is furnished by the Metropolitan Life Insurance Company, which places fire third on the list, exceeded only by fatal motor vehicle injuries and falls.

No accurate data are available to break down these fire fatalities (and injuries) into sex and/or age groups. The actual number of children burned or suffocated as a result of fire in one form or another in this country and Canada is now conservatively estimated to be in excess of 4,000. Of this total, the great preponderance of victims falls within the one month to ten-year-old age bracket—in short, among the very young.

Reliable data concerning permanent injuries from burns, smoke inhalation and kindred contributory causes resulting from fire are likewise missing. As anyone can easily verify, such injuries rank high among casualties treated by doctors and hospitals. What likewise seldom makes the headlines, and about which accurate statistics are incomplete, is the number of children permanently disfigured from this cause. Fire leaves many and terrible scars, and rehabilitation in cases of severe burns (second and third degree) is frequently a slow, painful and costly ordeal. Many young persons never fully recover from the after-affects.

All surveys of the hazards which cause deaths by fire indicate the principal danger spot is the home. It is here, authorities agree, that more than four-fifths of deaths by fire occur.

A discouraging, even alarming factor, is the persistent increase in the number of fire casualties of all kinds, notwithstanding the continued effort to provide better public and private fire protection and prevention. For many years the annual deaths by fire in all categories were estimated at approximately 10,000 persons, of which somewhere around 3,000 were children. Those estimates have had to be revised upward in recent years. Now, although apparently property losses from fire are beginning to show a slight decline (1954 losses reportedly are down 3.6 per cent from those of 1953) deaths and injuries from fire appear to be on the increase.

This trend is noticeable (January, 1955) not only in widely publicized fires which took many lives, even entire families, but in the vast number of smaller ones in the home, in each of which someone died. It is the sum total of these many home fires, rather than the large-scale holocausts, which swell the gross aggregate of fire victims, and point the need for still greater fire prevention in the home.

This trend, in the face of improved national and local fire prevention effort, the removal of slum areas, improvement in residential construction, and notwithstanding the advances in the nation's fire suppression services, of necessity causes concern throughout the country's fire forces. The situation poses the thought: what would the losses be without this improved effort and investment!

Statistics never prevented a fire, nor did they ever put one out. Nevertheless, fire fighters maintain that the alarming figures on fire fatalities, particularly among the very young (and old) should at least focus attention on the need for redoubling efforts to prevent such disasters.

Doorway to death of four baby sisters.

Sorrowing Arthur Bentley stands at tragic threshold of a neighbor's house in Kansas City, Kan., where four baby sisters, 9 months to 4 years of age, burned to death as he looked on helplessly. Hearing cries of children, who had been left alone while their mother was doing the family wash, Bentley tried to enter flaming house through doorway. Forced back by heat he found a phone, called firemen, who blamed overheated oil stove, behind which was a cardboard carton partition, for the tragedy.

Geographical Distribution

Where are these tragedies taking place? What is their geographical distribution and significance, if any?

The answer is they are not confined to any particular area. No single section of the nation has a monopoly on such casualties. They are not confined to any states, or any cities or wide open spaces.

Every state in the country has had

a share in the regrettable record; none is immune to the evil, and all can apply some corrective measures and efforts to prevent them or to minimize their impact.

Take a specimen dozen of the worst cases of 1955, as a sample. These all occurred between January 1, and 20 and each involved more than a single death. They happened in New York, Pennsylvania, Florida, Michigan, Virginia, South Carolina, New Jersey, California and Canada.

Canada, Michigan and New Jersey each chalked up two or more incidents. One in South Amboy, N.J., on January 19 proved particularly pathetic. It resulted in the death by suffocation of three children—two of them twins—of a South Amboy fireman, Raymond Deliman.

Deliman, who in his career had helped to rescue other children, was unable to save his own, although he suffered first and second degree burns in the frantic effort to do so. There is some small consolation in the fact that his wife and one-month-old baby escaped. The cause of it all? You can guess: faulty kerosene heater.

It is of course true that some areas have a higher incidence rate than others, based upon population, climate, living standard, building laws and kindred factors. Logically, there should be more fires, more casualties, where there are more children; where families are largest. But this does not necessarily always follow. We have seen big cities, like Los Angeles, reduce these tragedies to a greater degree than other smaller municipalities with considerably less population, and fewer fire hazards. Therefore geography is not the sole motivating factor. It is unwise to attempt to compare, or gauge, cause or effect by geographical location alone without including also such other influences as climate, origin, and the like.

If, as is indicated, the most outstanding single cause of these disasters are portable oil heaters, and heating devices, then it would seem that those climates requiring the use of heating systems or appliances should normally be expected to have the highest fatality and accident rate.

Here, again, the facts tend to upset such deductions. Compared with many northern, cold areas, the more temperate south and middle south have maintained very high averages of deaths by these heaters. So serious have been the loss of children (and grownups) in Tennessee, Mississippi, Louisiana, for instance that the newspapers of the area, taking their lead from Memphis (and the excellent work of the Memphis Fire Department) a year ago embarked on a determined campaign to cut down the number and severity of these fires, explosions and their resulting casualties. This is a story in itself, but the excellent results show what could be done.

In Maine, Wisconsin and Quebec, essentially cold fronts much of the year, at the other end of the line, up north, we find entire families being wiped out by fires caused by the same deadly devices.

But our geographical breakdown cannot stop with states. The physical distribution must be studied still further, The question naturally follows, are these incidents peculiar to urban, or non-urban districts? Are they fought by big paid municipal fire fighters, or small town and rural volunteers? And what part does geographical distribution play in the fire fighting and rescue efforts? Surely there must be some relationship.

Grieves over loss of wife and three sons—by fire.

Lloyd Merrifield, 36, and son, 8, grieve after fire swept their duplex home in Indianapolis, Ind., December 7, 1954, bringing death to Mrs. Mary Merrifield, 35, and three sons, 8, 3 and 4. A daughter, 13, ran to neighbors to report the fire and escaped injury. Father is said to have been away at time.

And here, also, we encounter some extenuating circumstances. These concern such factors as poverty; sub-standard living conditions; the kind and type of habitation involved; availability of communications; nearness of neighbors, and highways. All these, too, have their part in the disturbing picture.

It would be easy to assume that these deaths and injuries resulting from fire and/or explosion, are identified primarily with flimsy shacks or hovels in out-of-the-way places, beyond the reach of fire protection, or to cottages and cabins in the wide open spaces. In the cities, the assumption would be logical that they are more common to areas with sub-standard tenements (of which nearly every city has too many).

Generally speaking, such is the case. Nevertheless, although the type of occupancies most involved, as we shall see later, are in the less pretentious brackets, and the number involved is in the aggregate greater in the smaller cities, towns and villages than in the big cities, it is disclosed that contrary to beliefs held by many, most of these tragedies do not occur in places where there is no fire protection of any kind.

It is true that in some places where entire families were wiped out, or where but few escaped the fires, protection was limited or non-existent. If we measure mortalities according to number of casualties per incident, it might be said the lesser populated places, without organized protection, have the dubious distinction of leading those areas having better fire protection. Certainly the accounting establishes the need for broader organized fire protection.

Study of the records discloses numerous statements such as *"rescue efforts failed because there was no ladder to reach the trapped children."* . . . *"There are no telephones in the area and—had to run nearly a mile to put in a call for firemen."* . . . *"Neighbors were forced to stand idly by because there were no means to fight the fire,"* etc.

Occupancy—Emphasis on the Home

When we begin to study the nature of the habitations in which these children who were killed, disfigured or otherwise injured, lived with their parents, we begin to get a clearer picture of the reasons for the appalling annual casualties.

It is an indisputable fact that family abode and living conditions contribute greatly to the fire totals. Overcrowding in flimsily constructed houses, with youngsters falling all over themselves and their elders—and over the ubiquitous death-dealing, portable oil heaters, cannot help but invite fire and its handmaidens, death and disaster.

The record for 1954 abounds with occupational and habitational references such as these: *"Tiny rural home—wiped out."* . . . *"Small 1½-story home on Route 1 scene of death."* . . . *"Cottage near airport"* . . . *"2-story tenant house, destroyed."* . . . *"Modest 1-story dwelling burned."* . . . *"Small farm home razed."* . . . *"One room log cabin a tinderbox."* . . . *"2-floor garage apartment death trap,"* etc. Sometimes the records have a strange similarity.

There is that tragic entry: "Feb. 8, 1954. New Orleans, La.—5 children, colored, age 7 months to 3, burned in a 3-room tar paper covered shack. Mother away at the time. Cause, overturned kerosene stove." And this from Toronto, Ont., datelined March 3, 1954: "Two children, age 4 and 3 burned to death; mother and two other children hospitalized when a flash fire, believed caused by a stove, destroyed their tiny one room tar paper shack 12 feet square." An unmailed letter, found after this fire, said to have been written by the burned mother to her son in Korea, adds a pathetic footnote. She wrote *"we won't be able to keep on living here because . . ."* Here too, the parents were away; the children being left in

care of a neighbor. But these data should not impel the conclusion that all such incidents are peculiar only to these sub-standard occupancies. The records indicate otherwise and attest our earlier statement that no place, and no particular habitation is immune.

Take for example, the stark tragedy that struck the wealthy Grove family (the Grove Laboratories are well known everywhere) when their 12-room, $50,000 Maine "showplace" burned to the ground on December 15 last, killing all three of the Grove boys and a middle aged couple acting as caretaker. The occupants of the costly structure never stood a chance when the fire (cause undetermined)roared through the house; and yet all occupants were believed secure enough to warrant the parents leaving them.

A still more recent tragic case brought death to three little girls, aged 3, 6 and 7, daughters of a Chester, Pa., business executive, and a 62-year-old baby sitter, on January 20th, last, when fire destroyed a 6-year-old, $30,000 ranch house in Wallingford, south of Media, Pa.

The parents, believing their children safe in the care of the experienced sitter left for Atlantic City. But fire, starting from an undetermined source near the living room fireplace chimney, had such a start about 5:00 a.m. before being discovered by neighbors that neither they nor the firemen of South Media, Garden City and other places who responded promptly, could remove the victims in time. All but one were dead of suffocation before rescue, one died before reaching the hospital.

Here we have a modern one-story, roomy, well-built house (measured by today's building standards) with picture windows (through which firemen entered); an experienced baby sitter; no portable or other heaters in use. Yet fire wiped out every occupant.

Nor can all the apartments which fires convert into tombs be called tenements. Death in the category of high class apartments and apartment hotels have been common to nearly all the big cities of America. Not a few children (as well as grownups) have suffocated, or burned in stylish apartments and multiple dwellings, some advertised as "fireproof."

Review of some 100 typical fatal fires indicates the greatest loss of life occurred in small frame dwellings of one to three rooms and 1½ stories to two stories in height. Casualties have been heavy in small cottages of from one to three rooms.

Heavy loss of property from the fire or explosion resulted in nearly every case where fatalities were numerous. The small frame structures, especially in areas with little or no fire protection, were generally total losses. As one terse report stated it: "Only the warped skeleton of the oil heater (cause of the fire) stuck up out of the ruins."

A number of disastrous fires occurred in structures listed as "unfit for occupancy" by local health, building or other authorities. Fires occurred in others in which sub-dividing and sub-leasing had not previously been uncovered by inspectors. In Toronto, four children and their mother perished in a fire that ripped through an 80-year-old flat. In Cleveland, Ohio, five small children of two familes never had a chance, nor did rescuers, when fire destroyed the interior of a 50-year-old frame "illegally converted" slum tenement. Incidentally, these children had been left alone. Much the same thing happened in New Brunswick, N. J., only two days later, when a 10-month-old boy died and his little brother was terribly burned as fire gutted an old two-story structure that had been ordered demolished but, through some miscalculation of justice, was permitted to house a mother and three children.

The irony of fate would have it that all-too-often the larger the family involved in the incident, the smaller the place in which its members lived and the more congested their living conditions. The case histories include many such observations as these: *"The family lived in a single room, which was heated by a kerosene stove."* . . . *"The dead children were all found in a single bed in the small upstairs room."* . . . *"The parents, who slept downstairs, escaped with the youngest infant but the other children were trapped in their tiny upstairs bedroom."* . . . *"The parents were unable to get up the single stairway to reach the little ones upstairs, cut off by flames and smoke."* . . . *"The children* (5) *occupied a single room downstairs with the kerosene heater placed between the beds and cots. . . ."*

Among the firetraps which proved incinerators for these unwary were *"converted boxcar"* . . . *"winterized summer camp"* . . . *"house trailer"* . . . *"temporary cabin"* . . . *"log cabin"* . . . *"portable migrant labor camp"* . . . *"apartment under a paint store"* . . . *"lean-to shack,"* etc.

Causes Can Be Pinpointed

It is not always easy to determine the cause of a fire when practically nothing is left of the original building, or where the interior is completely burned out, and where there are no witnesses left alive to give evidence.

Notwithstanding this fact, it is often possible to place the blame for fatal fires in the category under study, where the residual evidence, such as it is, points conclusively to heating or cooking utilities. Very often these metal appliances, or what is left of them, provide their own mute testimony which, measured together with depth of char and extent of burn in the wreckage around them, pretty conclusively indicates *where* the fire started, if not indicating the actual cause.

There can be little doubt that the chief criminal in the death of children in such fires as we describe is the portable (kerosene) oil heater.*

Some indications of the incidence of death by this cause may be taken from a group specimen of sample fires which occurred between January 1 and 20, 1955. These caused the deaths of nearly 50 people, about 40 of them children (several of the injured may yet die).

Of these fires, seven were directly attributed to *"faulty kerosene heaters."* Others were caused by: *"faulty floor furnace"* . . . *"exploding oil stove"* . . . *"pouring kerosene on a fire."* Three others were believed to be due to the heating systems, but the causes were unconfirmed. One was blamed on *"children playing with matches"* and one considered possible arson.

This is of course, only a small cross-section, but it shows the preponderance of fatal fires attributable to the deadly portable kerosene heater. And it very definitely indicates certain remedial measures that should be taken to help correct the evil.

Perhaps all the blame should not be laid upon heating appliances themselves. Some of it, perhaps much of it, must be attributed to those persons who operate such facilities; yes, even including the youngsters who play around them,

"They never had a chance—all five died."

Firemen direct stream into upstairs bedroom of farm home in which five DeBaggis children died when fire starting in kitchen swept the house. Extent of burn is shown by picture. Note, also, oil container on sawhorse. Parents and youngest of six children slept downstairs and escaped, but all upstairs were trapped by smoke and flames.

*The term is used here broadly to describe those more common movable appliances burning kerosene, or some other type liquid fuel, which are not permanent fixtures, and which have not been installed and ventilated in accordance with the recommended practices of the National Board of Fire Underwriters and other authorities.

"I could hear them calling—and couldn't do a thing!"

With the cries of five of their six children in their ears, Mr. and Mrs. Reginald DeBaggis of Franklin, Mass., are forcibly restrained from attempting further hopeless rescue efforts as fire destroys their home on December 6, 1954. The father, feet and hands cut by broken glass in an earlier attempt, was pulled from a ladder after he and his wife escaped with their six-months-old baby sleeping downstairs. But they were cut off from other children trapped upstairs. A kitchen oil stove is believed the cause of the tragedy.

and whose curiosity incites them to play with them. Who bought the substandard devices in the first place? And who installed them in the second place? Who failed to use common sense in maintaining and operating them in the third place? Not children—but grownups.

While we are on this subject, the chief of a Canadian city advances a cause for many of these oil heater explosions and fires that is not as crazy as it may seem. He says, "These calls (of firemen to oil heater fires) are gaining every year. I put them into three categories: 1. Improper installation; 2. Home amateur jobs of manufacture and installation, and 3. The telephone. In the last case the oil is turned on and the phone rings and is answered and a long conversation results. The stove is finally thought of and the match applied, with the result, a flooded pot."

Flooding, overloading, plugging, failure to clean, etc., are reasons for fires caused by such equipment (not all of them, fortunately, causing death or injuries).

This is not a study of oil heaters, or heating equipment of any kind. However, it must be said that nobody knows how many thousands of persons, a very large percentage of them children, have met fiery ends because of misuse of kerosene, or "coal-oil" as it used to be called, since that fuel was found applicable for heating and cooking. Notwithstanding this fact, many areas have failed to initiate proper safety measures for the installation, use and maintenance of such fuel-burning devices.

Even by themselves, these appliances are a menace. When located and installed where youngsters play and romp, or where they become an object of curiosity, they prove a dangerous combination. The pity of it is that so many families have no other way to heat or cook, and that congested living quarters force them to locate such hazardous equipment where it is an ever-present threat to life and property.

Another deadly combination, out of which has come many fatal fires, is the trinity: *children - matches - combustibles.* No experienced fire chief needs to be told how destructive and how deadly this trio can be.

When we consider this cause we are forced to include grownups in our picture, with the added hazard *"smoking."* Smoking and careless handling of matches, are one of the prime causes of disastrous fires involving youngsters, just as they are the leading causes of so many other fires resulting in loss of life among adults.

"It's a pity," commented one veteran fire officer "that smokers who have to smoke in bed or on overstuffed furniture when they're sleepy, just don't burn themselves up alone, when the ultimate fire occurs, instead of involving possibly all the family including children—and even the neighbors."

Small children may not induige in smoking, but parents do. Many a little baby has been suffocated or burned to death by a fire started by a doting mother or admiring friend who was simply careless in their smoking.

Another common cause in some particular areas is the unguarded gas or electric space heater, which ignites children's clothing or unprotected furnishings. Invariably they are located on the floor, too often within easy reach of inquisitive little fingers.

These are by no means all the causes of these fatal fires. Every fire department can furnish additional causes.

What's Being Done About It?

Many years ago Jay W. Stevens, now Executive Secretary of the International Association of Fire Chiefs, and probably the most widely known and respected person in the nation's fire service, was a young officer in the Portland, Ore., Fire Department.

With his company, Jay had occasion to answer an alarm of fire in a small dwelling in which several children burned to death. It wasn't the first such deplorable incident in Portland, but it climaxed the determination of the Chief of Department to do something about it.

Jay was picked to spearhead the drive, which was one of the first ever undertaken by the fire service to carry the story of fire prevention right into the home, through direct contact with homeowners and tenants right in their living

(*Continued on page* 180)

"It is not death but dying which is terrible."

Mrs. Reginald DeBaggis, an English war bride, came a long way to settle in this country and raise a family. Fire in one awful flash wiped out all but one of her little brood of six. Here Mrs. DeBaggis, supported by relatives, weeps at the caskets of her children during burial service, while an entire community mourns.

California Fire Fighters Get Holiday Season Workout

By CLIFF DEKTAR

FIRE fighters in Southern California received a first class workout during the Christmas-New Year's season with a rash of multiple alarm fires.

First big alarm came on the morning of December 20 at 799 E. 18th St. in the heart of Los Angeles' industrial area.

An oven in the Lewis Food Co. factory exploded enveloping the entire bakery in flames. The concern bakes Dr. Ross Dog Food.

By the time L.A.F.D. Engine 30 and Truck 30, the first-in companies arrived. the structure was fully involved and the flames were spreading to the company's adjacent warehouse and to a small apartment house.

Additional units immediately were requested as a pillar of black smoke began rising through the city's unusual smog-free air. Observers at television transmitters at far off Mt. Wilson spotted the loom up and called their L.A. offices for information.

Photo by Gene Hackley, L. A. Mirror Staff Photographer

Twin towers of black smoke loom up from Lewis Food Co. fire in Los Angeles' industrial district. Firemen on manifold rig at right prepare deck gun for action. Fire is also burning on other block to left where smoke rises.

L. A. F. D. Photo

Extent of Lewis Food Co. fire can be seen in this shot taken from roof of company water cooling tower looking west. Fire started in upper right section. Note chiefs on roof watching operations.

A fairly stiff wind gave the firemen a rough time at first, but efficient work by the L.A.F.D. crews managed to keep the fire from spreading into the processing part of the plant. Two small wooden homes were partially burned, and the wooden apartment structure also was saved.

Headquarters Asst. Chief Frank Winkler, Asst. Chief R. R. Robertson, and Acting Battalion Chief Lee R. Hosfeldt took charge of the fire.

Traffic in the busy industrial and commercial area was hopelessly jammed and every available motorcycle patrolman from the L.A. Police Department was ordered in to try and untangle the snarl.

Officials of the food company said that 133 employees managed to escape safely and added that damage would run in excess of $500,000.

Responding were Engines 10, 30, 9, 7, 23, 17, 14; Trucks 10 and 30; Salvage 14; Squad 23; HAC Chief Winkler; Division 3 Chief Robertson; and Batallion 5, Acting Chief Hosfeldt.

Two days later a fire broke out in the Los Angeles Tanning Co. plant in the City Terrace area.

By the time Engine 32 of the Los Angeles County Fire Department received the alarm at 2:24 p.m. and pulled out of its house, less than a half mile from the plant, the structure was completely involved.

Chief Orlo Pederson of Battalion 3 quickly ordered a 2nd and 3rd alarm and First Asst. Chief Roland W. Percey and Deputy Chief John Duncan also responded from County Fire Headquarters which is located nearby.

Other industrial buildings in the vicinity were threatened for a time as flames burned through the corrugated structure filled with leather hides. There were several minor explosions.

The County fire fighters brought a ladder pipe on Truck 27 into play to sweep the top of the burning building.

The blaze finally was confined to the tanning plant.

Investigators reported the fire probably started when sparks from a buffing machine ignited leather hides.

Damage was estimated at $500,000 and 33 employees escaped safely.

Responding from L.A. County F.D. were Engines 32, 1, 2, 3, 22, 27; Truck 27; Rescue 3; Deputy Chief Duncan; First Asst. Percey; Battalion 3 Chief Pederson.

The biggest loss of any of the series of fires occurred on the morning of December 27 in the Orange County community of Fullerton east of Los Angeles when a $2,000,000 fire destroyed a large section of the industrial areas.

It was the most devastating fire in the history of Orange County and it took the concentrated effort of most of the area's firemen to control it.

Two large fruit packing and processing plants were burned to the ground by the gale-whipped winds as were a huge cold storage plant, a dress factory, and a water-softening plant.

Winds up to 50 m.p.h. turned the full-block blaze into a giant flame thrower which licked toward a new residential district only a block away and menaced Fullerton's nearby shopping district.

Service on adjacent Santa Fe railroad tracks was temporarily interrupted.

The fire was first spotted shortly after 4 a.m. at the Eadington Fruit Co., packers of Minute Maid orange juice concentrates. The plant is at the corner of Spadra Road and Santa Fe St., less than a block from Fullerton's central shopping district.

Clinton Hill, a night watchman at the adjacent Golden Citrus plant, spotted the flames burning through the roof and turned in the alarm.

By the time Chief Lloyd Eckles and six Fullerton fire companies arrived, sections of the plant's roof had collapsed.

From there the fire spread to the Golden Citrus plant, but fire fighters saved the firm's juice plant.

At the same time, flames leaped across the railroad tracks to the American Fruit Growers, Inc., plant, where only a portion of the office was left standing.

Flames from the rear of that building leaped back across the tracks to the Cindy Lee of California dress manufacturing plant, which was also leveled.

Firemen managed to prevent the fire from burning adjacent plants of the Fullerton Mutual Orange Association, but the fire did jump and destroy a warehouse of the Anaheim Cold Storage plant and the Culligan Soft Water Service plant.

Firemen Charles Day of Fullerton F. D. and James Farrel of the Orange County Forestry Service were overcome by smoke. Asst. Chief Dave Smith of Santa Ana F.D. suffered shock when a falling timber cracked his helmet and Fireman C. E. Heard, also from Santa Ana, suffered face burns.

Chief Eckles' request for assistance was answered by units from throughout Orange County including Santa Ana, Anaheim, Brea, La Habra, Buena Park, Huntington Beach, Red Hill, and the Orange County Forestry Service.

The following day a terrifying forest fire driven by winds up to 75 m.p.h. destroyed two homes and threatened hundreds of persons in the small communities of Devore and Verdemont in Cajon Pass just north of San Bernardino.

The fire started shortly before noon on December 28, during one of the worst wind storms in Southern California history.

All available units from the California Division of Forestry were mobilized as were U.S. Forest Service crews. The C.D.F. moved in 22 pumpers, some from as far away as San Diego County in a desperate attempt to keep the flames from the homes.

However, in the early stages, all the fire fighters could do was protect the buildings as the high winds often bowled men over.

Indian fire fighters were flown in from Arizona and New Mexico and engine companies from nearby San Bernardino and other fire districts stood by.

Officials said it was a miracle that only the two homes were destroyed by the wind-whipped flames.

Water froze in hose lines the first night as the temperature dropped to below 32 degrees.

Telephone lines were burned in several places leaving much of the mountain and Mojave Desert area without communications. Many areas were darkened when a 100,000 volt high tension line was knocked out.

More than 750 men managed to control the fire by December 29 after the winds died down and gave them a chance to get at it.

The last of the big blazes broke out shortly after midnight on January 4 on Hollywood's famous Sunset Strip about half way between Ciro's and the Mocambo.

A professional ice skater, Richard Strauss, spotted the fire burning at the rear of the Normandie Village Apartments and ran through the maze of old English type structures warning occupants to flee.

He reportedly contacted the manager of the units who ran down to see what was burning. By the time she returned to the office, the flames had burned out telephone lines, causing a delay in notifying the Los Angeles County Fire Department.

County Fire Headquarters received the first alarm at 12:31 a.m. and immediately dispatched Engines 7, 8, 108, Truck 8, Rescue 8, and Battalion 1.

L.A. City's Westlake alarm center also received a report of a fire in the area and in conforming to its policy on fires believed to be in county area, sent Engine 41 and Battalion 5, Chief Harry Gross, to see what the situation was.

County Engine 7 responded east on Sunset Blvd. The main portion of the flames was obscured by the buildings since the fire was in the garages at the rear of the apartments and down the slope of a hill.

Capt. Russ Cox and his crew carried a line down the narrow passageway at the west side of the Village and then

L. A. County F. D. Photo

Flames boil through roof of Los Angeles Tanning Co. as County firemen break out door preparing to place hose line inside.

L. A. County F. D. Photo

Los Angeles Tanning Co. burns. At left, ladder pipe on County F. D. Truck 27 is played on fire while other hose lines are placed around perimeter. County Rescue 3 in foreground.

Photo by Loren Patty, L. A. Mirror Staff Photographer

Left: Spectators watch Normandie Village burn on Sunset Strip. Firemen had rough time getting lines into fire.

Photo by Loren Patty, L. A. Mirror Staff Photographer

County fireman carries hose away from Engine 108 as deck gun prepares to go into action at Normandie Village fire on Sunset Strip. Note Old English type buildings burning. Fire started in garages at left of burning roof. Big apartment building at right was saved.

Photo by Loren Patty, L. A. Mirror Staff Photographer

After the Normandie Village fire was over, this is what remained of garage area where fire started at right center. Fireman (left center) plays hose on smouldering remains. Just behind hose stream is collapsed patio roof where two city firemen were injured. Eleven cars burned.

they saw the garages, cars, and several apartments were fully involved.

Meanwhile, more than 200 persons were fleeing onto busy Sunset Blvd. as the flames ate into the old wooden buildings with high wooden roofs.

Capt. Howard Oakes of County Engine 8 said "it looked as if the whole Hollywood Hills were on fire" as his company rolled north from Santa Monica Blvd. toward the fire.

Chief B. D. Robinson of County Battalion 1 could see the flames as he started down the Baldwin Hills nine miles to the south toward the fire.

"I could see we had a bad one going," the chief said. "I requested more information and immediately ordered two more engine companies dispatched."

Meanwhile L.A.F.D. Engine 41 arrived and found the fire in the county. Permission to move in and help was granted at once and, after Chief Gross arrived, two additional city engines and one truck was ordered in to help the county. Asst. Chief Forest Moore arrived soon after and ordered another truck, a salvage company, and a light unit.

The county also sent additional units, but the fire fighters were hampered by the lack of access to the fire. The slope of the hills and the weird construction of the units prevented laying of lines with the rigs and most hose had to be muled in.

The flames licked perilously close to an adjacent, new $500,000 apartment unit and to a famous photographer's studio.

County Truck 8 was driven down a narrow roadway and the 85-foot aerial raised with ladder pipe attached. This gave the firemen a chance to sweep the entire west side of the fire from a good elevation.

At the east side, County Engine 108 was moved to a parking lot and its deluge gun set up to play on that section. It was impossible to attack the fire from the front or Sunset Blvd. side except with hand lines.

About this time Capt. Cox of Engine 7 and Firemen Milton Farrell and Tom Faulkner saw the heavy stream of water from the aerial moving toward them. The ladder pipe operator apparently could not see the crew through the heavy smoke.

Capt. Cox immediately shut the line and started to move out of the way, but all three men were swept off their feet by the stream. Fortunately, none was hurt.

By now extra squads of California Highway Patrolmen and L.A. County Deputy Sheriffs were called to detour traffic and to handle the tremendous throng of sightseers who swarmed in from the Strip's well-known night clubs. A few movie stars and other celebrities were in the crowd.

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ALARM BOX SYSTEMS WEATHER HURRICANES; PHONES FAIL

Recent Survey Among 80 New England Communities Attests to Greater Dependability of Municipal Fire Alarm Systems

Editor's Note: **Most readers of *Fire Engineering* are familiar with the controversy over the fire alarm box vs. telephone as a basic means of transmitting fire alarms.**

One of the important factors frequently overlooked in weighing the merits of each facility is reliability of service under extreme disaster conditions. High standards of engineering, materials and service are fundamentals of efficient fire alarm communications and are stressed by the National Board of Fire Underwriters and N.F.P.A. in their published standards requirements.

It is doubtful if any recent disaster conditions demonstrated the mechanical and engineering superiority of our present-day fire alarm systems as did hurricanes Carol and Edna, late last year.

The following report is based upon a questionnaire sent to all fire alarm superintendents in the affected areas, soon after Hurricane Carol. Replies were received from over 80 communities telling how their fire alarm systems stood up during the emergency. Acknowledgement is gratefully made to these officials, their chiefs of departments and to the manufacturers for their cooperation in making this data available to readers of this Journal.

HURRICANES are the supreme test of the durability of all types of communcations systems, and the mettle of the organizations that service and maintain them. If fire service communications have any shortcomings, hurricanes such as that alphabetical trio, Carol, Hazel and Edna will disclose them.

The need of engineering, installing and maintaining critical fire alarm systems to withstand all possible handicaps, including inclement weather, has long been appreciated in the fire service and by organizations such as the National Board of Fire Underwriters which has, through its Committee on Signaling Systems and Thermostats, established the high standards under which such equipment is made and used in the fire departments of the nation.

The standards of product and service of the telephone companies also are established on a high level, and under normal conditions perform efficiently. Telephone emergency crews have won wide recognition for meeting emergencies that result in outages, or stoppages of service. The telephone companies have deservedly heaped praise on their emergency services following major sleet and wind storms, floods and holocausts such as the New England conflagration of several years ago. They accomplished the near-impossible in restoring service, with minimum delay.

Commercial telephone subscribers are familiar with these service interruptions, even if not always reconciled to the delays. But these subscribers, while accepting with some reservations the inconveniences imposed by the delays to their normal phone conversations, do not take kindly to them when a critical emergency such as fire arises. The fact that the telephone subscribers' contract specifically absolves the company from such things as hurricanes and the like, does not compensate their fears and displeasures. Nor does it suffice to allay doubts and fears of the fire service which can tolerate no interruptions, even of its own facilities.

Wherever municipal fire alarm systems exist, they generally are accepted by public as well as fire service as dependable even under the most serious catastrophies, including cyclones, hurricanes and tornados. It is generally expected that they will continue to function, notwithstanding the onslaughts of weather, or at least to endure long after other wired communications have fallen by the wayside. Again, generally speaking, they do.

The record is replete with instances where the fire alarm telegraph was the last means of communication after all else had become disrupted. On that infamous day at Pearl Harbor, the telegraph system alone survived the clobbering and was the sole wired communication channel for several weeks.

There is no particular secret about it. Any municipal communications signal engineer can tell you why this is.

Considerable light was shed on this question following last Fall's hurricanes Carol and Hazel (it isn't necessary to include 'Edna'), which, incidentally, did more property damage, measured by insurance statistics, than the San Francisco fire.

Comparison of Two Services Made During Fall Hurricanes

In an effort to determine comparatively just how susceptible systems were to interruption of outage, fire alarm superintendents throughout most of the affected areas of New England were questioned on the point. They were asked such questions as the size of their municipal fire alarm systems (by circuits and boxes); the number of both 'knocked out,' and the length of time service was out. They were also asked what percentage of telephones and the telephone systems in their district were put out of service, and how long it took to restore that service.

Shorn of technicalities, here are some of the comparative case history data concerning hurricane "Carol."

Boston, Mass.—In the largest city in New England, the fire alarm system was restored within 12 hours by the communication's bureau's own employes but the telephone service was disrupted for days.

Walpole, Mass.—The fire alarm system was back in operation within 48 hours; phones were not completely restored until after 'Edna.'

Quincy, Mass.—All 15 fire alarm circuits were restored by 11:30 p.m. the day of the hurricane; phone service was not restored until two weeks later.

Wareham, Mass.—The fire alarm system was completely back in service within 24 hours, but the phone service was completely knocked out and not fully restored for two weeks.

Coventry, R. I. — Permanent repairs were made to the fire alarm service within two hours after "Carol" struck; three-quarters of the phones in the area were out for four days.

Saco, Me.—The fire alarm was back in service within 24 hours; phones not completely restored for 15 days.

Portsmouth, N. H.—All fire alarm circuits were restored the day after the hurricane; telephones were out for several days.

Manchester, N. H.—Complete fire alarm service restored the night of "Carol"; phones not completely restored for a week.

Nashua, N. H.—Full fire alarm service restored within a few hours; over 6500 phones out, not completely restored for two weeks.

Phones "Jammed"

A point made by a number of respondents was the jamming of the PBX boards. A Massachusetts fire alarm office put it this way: "Public telephone service was available as far as fire alarm headquarters was concerned. For a period of one hour, trouble on the direct line to fire stations prevented those stations from hearing us. The PBX Board was jammed with incoming calls for several hours. . . ."

In places where the telephone was the sole means of the public communicating with the fire department, the interruptions of course were far more serious than where, even if phones went out, street municipal boxes were available, and operative.

It should be said with credit to the telephone companies they made every effort to restore the critical fire service communications and it is possible that in some reports which refer to restoring service in a certain period, some service —even if temporary—was established sooner than the over-all picture would indicate. Nevertheless, it is fortunate that no fires of very serious magnitude occurred while these services were interrupted. It is said that upon several occasions, fires were reported over corner fire alarm boxes after efforts to first use the telephone met with failure.

The evidence gathered following these hurricanes would appear to justify the statement that has been advanced by adherents of the municipally-owned and operated fire alarm system, that under such control the fire reporting system is more efficient and reliable under extreme emergencies than where wires are under control of a leasing company. Centralized ownership and control, whether the system employs the street corner box, or telephone, is more dependable as it permits round-the-clock effort on the part of fire alarm signalmen, resulting in faster restoration of service. This could not be assured if the fire reporting system wires were controlled by a leasing company. Although such company would do all it could to

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I.A.F.C. BOARD OF DIRECTORS PLANS ACTIVITIES FOR 1955

Program For 1955 Conference Reviewed, Miami Picked For 1956, General Manager Tenders Resignation

THE 1955 Annual Meeting of the Board of Directors of the International Association of Fire Chiefs was held January 6, 7 and 8, at the Hotel Martinique, New York. A pre-meeting session of the President's Advisory Committee, comprising the sustaining members of the Association, was held on the 5th. Following the close of the Board meeting, about ten of the directors and officers departed for a sojourn in Puerto Rico to be guests of Fire Chief Raul Gandara.

Important highlights of the Board's busy sessions were, first: review of the plans for the 1955 Conference, scheduled for Omaha, Neb., September 19, 20, 21 and 22; the decision to hold the 1956 Conference in Miami, Fla.; and finally the acceptance of the resignation of General Manager John D. Gerletti, who will voluntarily leave the Association next August to return to his former post with the University of Southern California.

Most of the Sustaining Members of the Association who form the President's Advisory Committee under chairmanship of Hubert Walker, of the American LaFrance - Foamite Corp., were present at the Wednesday session and discussed wider cooperation between the group and the Association. Adopted were ideas to present an emblematical plaque to all new and old Sustaining Members and to support the I.A.F.C. membership campaign.

During the closed session Thursday, there was discussion of the selection of a new General Manager to replace John D. Gerletti, whose resignation was accepted as of August 1, 1955.

The Board took no action other than to appoint a Special Screening Sub-Committee to review the several candidates for the post.

The reports of the Budget Committee, Chief William Fitzgerald, Seattle, Wash., Chairman, and the General Manager showed the Association in excellent financial condition and at its highest point in membership, which now numbers over 7,000. President C. Gray Burnett presided at the day's sessions and at the luncheon given by the National Board of Fire Underwriters.

Among the invited guests present at this luncheon were Bruce Bielaski, Assistant General Manager, N.B.F.U.; John Neal, Chief Engineer and George Swan, Assistant Chief Engineer and other top N.B.F.U. officials. Also Fire Chief Peter Loftus of New York City; Percy Bugbee, General Manager, National Fire Protection Association; George Richardson, Sec.-Treas., International Association of Fire Fighters, a number of past-presidents and chairmen of committees.

Much interest was manifest in the Friday report of Chairman of Exhibits, Chief Clyde Canning, and others on the forthcoming Omaha Conference. The host city and the Omaha Fire Department, under direction of Chief Eugene Fields, have completed plans and work is well under way to make the 1955 Conference one of the most outstanding in the history of the I.A.F.C. Exhibits will be held in the spacious Auditorium, a short distance from the Hotel Fontanelle, Conference headquarters.

Chief Beverly Wade of Kentville, N. S., reporting for the Program Committee, said an exceptional educational program was planned, with emphasis on panels, symposiums and audience participation. Plans envisage a dramatic demonstration of large scale fire defense.

Three cities bid for the 1956 Conference. They were Las Vegas, Nev., Rochester, N. Y., and Miami, Fla.

Fire Chiefs Hear Results of Muscular Dystrophy "March"

Officials of International Association of Fire Chiefs heard preliminary reports of amount collected in Thanksgiving Fire Fighters March for Muscular Dystrophy at board of directors meeting at Hotel Martinique in New York. Arthur Gallway (second from right), national coordinator of Muscular Dystrophy Associations of America, Inc., disclosed that drive obtained at least $3,500,000 to aid victims of fatal disease which has stricken more than 200,000 in U.S., mostly children. Others (l. to r.) are Chief Henry G. Thomas, of Hartford, Conn., outgoing president of I.A.F.C.; George J. Richardson, of Washington, D. C., secretary-treasurer of International Association of Fire Fighters, A.F.L., whose organization also participated in nation-wide campaign, and Chief C. Gray Burnett, of Ottawa, Canada, new president of I.A.F.C.

The final decision reached was to accept the invitation of Miami. The dates set were November 12 to 16 inclusive.

Chief Henry Thomas, last year's president, reported on the Muscular Dystrophy Campaign conducted by the nation's fire service. He was followed by Arthur Gallway of the M.D. Association, and George Richardson of the I.A.F.F. whose members directed the drive. Although returns are incomplete, it was disclosed that 632 locals of the I.A.A.F. participated, together with some 3,000 volunteer fire companies, with personnel workers totaling 133,000. Preliminary estimates indicate the sum raised will reach $3,600,000.

The I.A.F.C. Board also heard a report on the television show, "Alarm," which, its promoters say, will shortly have a sponsor.

There was considerable discussion of support of the Boy Scout movement by the fire service. Among those who spoke on ways and means of enlisting further cooperation were Chief Reynold Malmquist, of Minneapolis; Dale Auk of Chicago, Ill.; Chief Clyde Canning, Midvale, Utah; Chief Wm. Taylor of Burbank, Calif.; and Chief Wayne Swanson of Rockford, Ill.

The Boy Scouts of America was represented by George Meyers who told about scouting. A resolution to cooperate with the Boy Scouts was unanimously adopted.

Robert Byrus, Director, Fire Service Extension, University of Maryland, Chairman of a special committee to work with the American Institute of Architects, reported on that organization's recent conference in Washington.

The members heard an impassioned plea by John Gerletti for a National Fire Administration Institute to train fire officers, with emphasis on fire department administration. Mr. Gerletti pictured the aims, objectives and costs of the enterprise and, following his remarks, members of the Board expressed themselves. No formal action was taken at the session.

Campaign to Reduce Deaths of Children Continued

The Association is continuing its efforts to reduce the tragic deaths of children and young people by fire, according to Jay W. Stevens, Executive Secretary of the Association, who detailed the progress of his committee on Fire Prevention since inception of the drive in 1951. A number of chiefs urged acceleration of the enterprise, and Thomas P. O'Brien, Deputy Chief-in-Charge, Bureau of Fire Alarm, New York City, told how his department's company and other inspections are reducing the number of fires, and fire casualties.

George Clough, Fire Marshal of Nassau County, N. Y., reported for the Arson Committee and urged closer investigation into fires in unoccupied buildings.

Ways and means to improve fire service public relations were discussed by I. H. Case, who heads the Committee on Public Relations. Two reports were received from Mathew W. Braidech of the National Board of Fire Underwriters, as chairman of Committees on Radiological Hazards, and on Fire Control of Fuel Gases.

Considerable time was devoted to a

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CHURCH'S FALSE CEILING GIVES BUFFALO FIREMEN TOUGH JOB

Concealed Spaces and Presence of Highly Combustible Materials Make Task of Fire Fighters Difficult

By Paul C. Detzel

CHURCH fires are often high-loss fires and it would be difficult to find a city or even a village which hasn't suffered a major church fire loss in recent years.

A recent one occurred in Buffalo, N.Y., where a $200,000 loss was suffered by an east side landmark, St. John Kanty's church, where fire starting in broad daylight necessitated three alarms to bring under control.

While the purpose of this article is not to discuss church fires in general—that subject was thoroughly taken up in Roi Woolley's excellent article in the July, 1948, issue of this Journal—the Buffalo fire holds special interest to the nation's fire service because of the nature of the problem which confronted Acting Fire Commissioner William M. Daly on the afternoon of January 12.

The huge church on Broadway between Swinburne and Brownell Streets was built in 1891 and was of red brick and stone construction. The edifice has suffered previous fire losses and only a year ago a small fire was reported in the vestibule. The blaze at that time was attributed to a parishioner who lighted candles carelessly.

This point proved an interesting one in the subsequent investigation of the latest fire. Commissioner Daly, Detective Sergeant Fred B. Thomasula and Detective Stanley Siget of the Police Arson Squad were told that someone had been leaving bouquets of flowers, small grocery packages containing fresh eggs and apples inside a Christmas manger scene near where the fire is believed to have started. This gave rise to the theory that a religious fanatic or deranged person who lights votive candles carelessly may have touched off the fire.

The fire was discovered by an unidentified woman parishioner who saw smoke coming from the church and went to the rectory to notify priests. The priests rushed to the church but were unable to enter because dense smoke filled the building. The first alarm was sounded at 1:01 p.m. and the first due company was Engine 22, housed two blocks away at 1528 Broadway. The five-man company commanded by Junior Captain Matthew J. Konie found smoke and fire pouring from stained glass windows which had already burst from the intense heat. They laid a 2½-inch line into the church.

"The interior was pitch dark from heavy smoke," Junior Captain Konie told reporters. "Without taking time to put on our masks we tried to make our way up the center aisle, but were driven back by the smoke.

"We withdrew and tried to make our way up the right side aisle. As we did, several pipes from the organ in the rear choir loft fell on top of the rear pews. The pipes were apparently loosened by the extreme heat."

The officer said his men were able to work up the side aisle to the crib, which was enveloped in fire, in front of the Sacred Heart altar on the right side of the main altar in the sanctuary."

Meanwhile, Battalion Chief Barry H. Piggott arrived and radioed a second alarm at 1:04 p.m. This brought out Deputy Fire Commissioner Edward L. Gavin who sent in the third via radio at 1:09. Commissioner Daly later took charge of the fire.

The firemen had a tough time reaching flames which spread up into a false ceiling which runs from two to 14 feet along the building. The flames burned through supporting beams but did not ignite insulation material inside the false ceiling. The firemen, using 11 big lines, worked their way into the heavily charged church. They took three big lines into the blind loft and along a catwalk. Commissioner Daly said that if these lines hadn't controlled the fire, he was ready to order holes to be ripped through the grey slate roofing to get to the seat of the fire.

The heat burst a number of valuable stained glass windows and others were smashed by firemen, in ventilating, before masked firemen entered the structure.

Damage was estimated at $200,000 to the building and to the heavily scorched interior. Several front pews were badly burned .and at least two canvas murals on the arched canopy over the side and main altars were ruined as were life-sized, imported figurines in the Christmas manger scene. The ceiling for almost the entire length of the church was blackened, pitted, cracked and peeling. The organ, rebuilt only a year previously at a cost of more than $10,000, was damaged.

Commissioner Daly said the fire was brought under control by 2:30 p.m., after the aerials of Trucks 3 and 6 were extended so firemen could effectively reach the higher portions of the church.

The blaze was Commissioner Daly's first major one since Mayor Pankow appointed him acting commissioner to replace Charles W. Halloran, who resigned to become first deputy state industrial commisioner of New York.

Firemen "Keep Cool" at Benton Harbor Bridge Fire

That one about the boy who stood on the burning deck has nothing on Benton Harbor, Mich., fire fighters who stood, slid, crawled and flopped on the burning bridge of the New York Central Railroad across the frigid St. Joseph River one day last December with the temperature a raw 16 deg. F.

How so little fuel could create so much fuss, fire and fumes is still puzzling the city's firemen who, under Fire Chief Maurice Shepherdson, wrestled with the unique blaze—and smudge—for more than an hour.

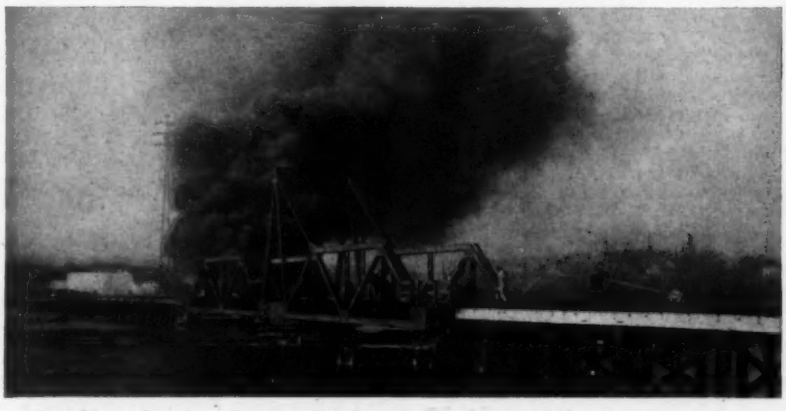
After mopping up, and "defrosting" themselves and their equipment, firemen found that the fire had originated in a small nook under the bridge, apparently used by a fisherman. To keep himself warm and perhaps to fry his catch, he had installed a small kerosene heater in his cosy retreat.

Who he was remained a mystery because, when the fire occurred, he evidently took off for parts unknown. As the fire fighters visualize it, he was called to shore, leaving his heater on, in the midst of some old clothing, blankets, and other gear. Somehow or other the heater touched off the combustibles, which in turn ignited the cubicle, and this involved the wood supports and ties of the trestle and bridge.

Chief Shepherdson said the space involved was too small to permit a person to sleep, upsetting the theory that a hobo was to blame. The small kerosene stove had apparently been left burning and an overflow of fuel had ignited and spread to exposures.

Railroad workers were called to repair the damaged 15 x 20 foot section of the bridge, near the west end of the draw. Once the heavy stringers and ties were replaced, train service was resumed.

Firemen, who had to stretch long lines of hose out to the scene, were able to control the blaze before more serious damage was done. They'd sooner confine their future fire fighting to less frigid and hazardous locations.



Stretching a long hose line on railroad trestle gave Benton Harbor firemen a workout.

Photo courtesy TEC NEWS

Tennessee Eastman Company has this equipment on 24-hour standby in the event of an emergency in the plant area. Shown here, left to right, are a service truck, ambulance, mobile emergency unit, hose carrier which has a 500-pound dry chemical unit, and a thousand-gallon pumper.

Industrial Fire Department Ready for Any Emergency

The Tennessee Eastman Company, at Kingsport, Tenn., believes in adequate protection against fires and other emergencies.

In the event of fire in the plant area, a new diesel-driven pump, recently installed, gives T. E. C. pumping capacity of 14,000 gallons of water per minute at 100 pounds per square inch pressure in its fire loop.

The pump is driven by a 400 hp diesel motor which operates regardless of power failures in the plant. It will pump 5,000 gallons per minute at 100 pounds per square inch pressure.

Eastman's other pumping facilities in the fire loop include a 1,000 gpm electric-driven pump and a 1,000 gpm turbine-driven pump; three automatic pumps—one turbine driven, and one electric driven, plus the diesel driven unit.

The fire loop is a separate water line which remains ready to serve in the event of a fire anywhere in the plant area. It is a grid system with fire mains around each block. Red-colored hydrants indicate the fire loop.

As a second line of fire defense, T. E. C. has the mill service line, which feeds water to various buildings for operations. Blue hydrants are the mark of the mill service line.

Supplementing the fire loop, the mill service water system has the following volumes available: 90,000 gallons per minute at 86 pounds per square inch pressure; 27,500 gpm at 56 pounds per square inch; 90,000 gpm at 47 pounds per square inch; and 55,000 gpm at 26 pounds per square inch pressure.

Sprinkler systems also operate from the fire loop. A standpipe, located on a hill at the southeast end of the plant, maintains water pressure on the fire loop. It holds 814,000 gallons.

The plant fire department also has a pumper which will furnish 1,000 gallons per minute, and in the event all the above systems fail, water can be had by suction from mill service lines directly from Holston River or from filter basins.

This summer T. E. C. added a mobile emergency unit to its facilities. The mobile unit is a specially-equipped panel truck, which answers every fire alarm and major emergency alert at the plant, under 24-hour operation by Plant Protection members.

The truck becomes a command post in the Company's Emergency Plan, and takes a vantage point at the scene of the emergency. The driver's section can easily be converted into a command post with seats and desk, a public address system, and two-way radios. Through the use of these means of communication, Plant Protection can direct emergency operations to a pinpoint.

For example, consider an explosion with fire following. Firemen with walkie-talkies can report on conditions inside the building. At the mobile unit, the man in charge could summon more manpower or equipment, whichever should be needed.

Purposes of the truck also are to carry additional rescue, first aid, and other emergency equipment in a single unit. It also can be converted into an ambulance if needed.

Its first aid equipment, duplicating that carried on the T. E. C. ambulance, includes a resuscitator, a large cylinder of oxygen, a wire ambulance basket, and blankets.

Rescue equipment includes a life net, asbestos protective clothing, gas masks, and rubber suits with hoods. The truck is equipped with a variety of tools.

Also included are two 1,500 watt gasoline-powered electric generators with necessary extension cords and flood lamps.

In fire-fighting equipment, Eastman also has available a hose carrier with a 500-pound dry chemical unit, a service truck, and two portable trailer gasoline-powered light plants.

The fire section of Plant Protection is manned by a chief (C. O. Richardson), four shift fire captains, four fire patrolmen, and seven S. & M. employes who respond to each alarm.

Firemen Trapped by Trench Cave-In

A Los Angeles city fire captain escaped serious injury December 14 when he was pinned by a concrete slab while assisting in the rescue of three workers buried in a cave-in.

The three workers were trapped by a cave-in of a 35-foot water main excavation at 92nd and Figueroa Sts. in southern Los Angeles.

Fellow workmen immediately started digging out the men, who were covered up over their heads.

L.A.F.D. dispatched Rescue 66, Engine 57, and Truck 64, along with Battalion 13, Chief Joseph R. Hoffman, and Division 1, Asst. Chief R. A. Williams.

Capt. Lewis Hospe, Engine 57, was in the excavation directing the rescue when another cave-in occurred and a slab of concrete pinned his leg, again burying two of the workmen. Several other firemen were also endangered by the second cave-in.

All of the men, including Capt. Hospe, were finally extricated from the excavation and doctors said that none was injured seriously.

Efficient rescue efforts of the L.A.F.D. units were praised by construction company executives. —CLIFF DEKTAR

L.A.F.D. Photo

Captain Lewis Hospe, Engine 57 (white front helmet in center of pit), works to free trapped men in excavation. Note man's head just in front of Captain Hospe. A few moments after this picture was taken another cave-in took place burying Hospe and victim.

Portland Propane Blast Causes Heavy Damage

Propane gas, leaking from a tank-car early on the morning of Oct. 18, last, spread like a "bluish fog" over railroad yards at Willbridge, Portland, Oregon, and exploded with the force of an aerial bomb when it became ignited by a switch-marker light.

According to Assistant Chief Edward Boatright, had the city's fire fighters been "on the spot" at the time of the explosion, many lives might have been lost. As it was, no one was seriously injured. Eight switchmen and trainmen were in the yard station office conferring on the possibilities of an explosion, when it occurred. They escaped serious injury.

Twenty-one box cars were overturned and wrecked in the explosion which cut a swath 300 feet long down the railroad tracks, on the west bank of the Willamette River. For three miles, Portlanders were startled out of their beds, and windows were broken by the eruption.

The trouble centered in a 10,000-gallon tank car of propane gas, one of a group of three, which had been shuttled into the yard just before 3:30 A.M. Apparently the gas escaped from a burst seam, or leaking valve. Yardmen were quick to discover the "hiss" of the leakage. Minutes later an inspector and switch crew noticed dense wisps of fog-like gas settling about knee-high over the darkened switch yards. They hastened to the station to report.

As one was telephoning the Fire Bureau, a small flash was spotted, followed by a flicker, then a small blue blaze traveling on the ground. In another instant the moving "blue blaze" erupted in a blinding flash and ear-splitting explosion, the blast wave knocking some of the men in the railroad office off their feet.

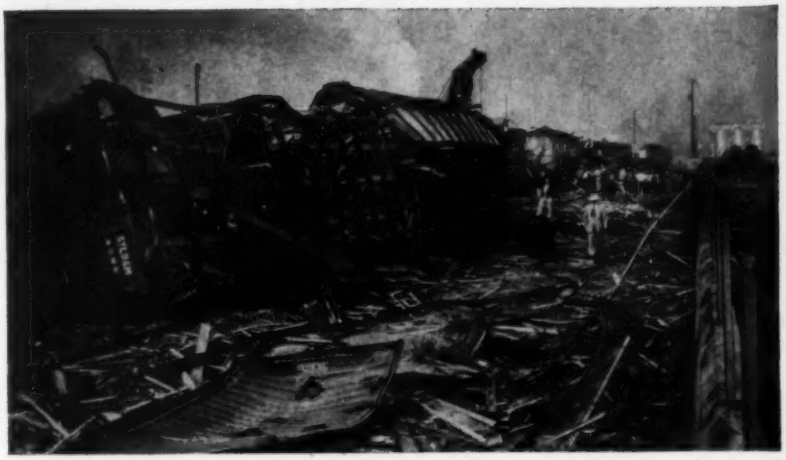
At least three of the 55-ton freight cars were torn loose from their multi-wheeled trucks; and the solid aluminum top of one was thrown more than 200 yards. The blast plowed through two rows of freight cars and over a wire fence into the Standard Oil Co. of California storage yard, punching big dents in two 80,000-barrel steel tanks.

The propane tanker blazed up immediately, and radiated heat threatened the entire yard. A heavy assignment of fire forces responded, to be faced with several major problems: (1) to reach the scene with hose lines, because of the size and extent of the yard and the hazards, and (2) the possibility of additional explosions in the freight cars, and exposed fuel storage tanks; and the need of searching for victims, as it was possible many might have been killed or injured.

Hose had to be stretched 4,000 feet along N.W. St. Helens road to bring water to the fire, and to cover exposures. Additional alarms brought some 20 pieces of apparatus and 200 fire fighters.

The tanker was purposely allowed to burn to consume the gas seeping out of the dome at its top. Six hose streams were concentrated on cooling down the tank itself. For seven hours fire crews poured thousands of gallons of water on the still blazing tank car; other streams were directed to kill fires in seven other freight cars. The fire was finally extinguished with explosion and fire loss estimated at $520,000.

More than 400 freight cars were in the yard at the time of the blast. About 723,000 barrels tank capacity storage by two firms was also in the area. Nearby also was an 80,000-barrel ammonia plant, a steel plant, and other property, all of which suffered some exposure damage.



The force created by the propane blast is indicated by the wreckage in the railroad yard shown above.

Propane tank car is wetted down to permit leaking gas to burn away.

Sydney Has Costly Theatre Fire

Fire struck the Variety Theatre, in Sydney, Australia, on Dec. 23, last, causing an estimated £150,000 property loss and threatening retail and office establishments on Pitt Street before it was controlled by 50 firemen and a heavy assignment of equipment.

About 50 patrons and five theatre employees were in the structure when the fire began, at 2:00 p.m. Only one, the assistant projectionist was injured. He staggered from the theatre into crowded Pitt Street, with his clothing ablaze. A passing ambulance officer smothered his flaming clothes with an overcoat snatched from a passerby, and the victim was rushed to the hospital with extensive burns and shock.

There was no panic. Usherettes saw that everyone was out in two minutes although five men and two women were trapped for 15 minutes on floors over the theatre, before their rescue.

During the several hour battle, 26 firemen were injured or suffered smoke poisoning, 11 being treated at hospitals.

The fire apparently originated in or near an "electricity box" behind the screen, and the flames burst forth as the screen itself took fire, rapidly spreading the blaze throughout the interior of the theatre.

Efforts to notify the fire brigade from the cashier's booth proved futile because the phone was only a receiving line. An employee then ran to an outside phone and called fire headquarters.

Immediately above the theatre, 11 employees of an electrical firm noticed smoke and felt the floor growing hot. Seven of them left down a front stairway. The others climbed out a back window onto a ledge where they were rescued with a ladder.

Police evacuated occupants of adjoining theatres and shops and controlled the huge crowd of spectators. The fire swiftly engulfed the theatre and burst out of front and rear entrances. Firemen brought lines into action to control these flames and protect exposures.

THANKS JOSEPH GUNNER

To Own or Contract For?

That is the question in Interlaken, N. J., residential borough of nearly 1000 persons. In January, Interlaken was shopping around for fire and first-aid protection. But there didn't seem to be any great 'bargains.'

A contract for these two essential services, supplied in the past by volunteer company of neighboring Wanamassa, ended in 1954. It was not renewed because of an increase in cost from $1,000 to $4,500 annually that was sought by the Wanamassa department.

A request to have neighboring Asbury Park take over the services for Interlaken was turned down early in the month on the grounds there was no legal provision under which Asbury Park, which maintains a full-time paid fire department, could step in. Officials said that emergency service would be extended to Interlaken, as in the past, but primary service could not be undertaken.

Interlaken's mayor, Sanford Flint, said he hoped to be able to announce a permanent arrangement soon but he was non-committal on the question of just who was going to take over services even during the interim. He said he was working out an arrangement with two neighbors for fire protection and for first aid.

Costly Fire Ruins High School

Fire of undetermined origin swept through the 58-year-old Burdick Junior High School at Stamford, Conn., on Dec. 22, doing damage estimated by fire officials at more than $2,000,000. Firemen from 10 companies, who fought the blaze in sub-freezing weather, saved the rear third of the three-story brick and frame, 30-room structure located in the central residential section of the city.

The only casualty during the fire was a knee injury suffered by Fireman Frank Romancyzk, 42, who was taken to Stamford Hospital for treatment.

Fire Chief Thomas Richardson said the blaze apparently started in basement quarters of the graphic arts department and worked its way through a ventilating system to the upper floors. The blaze broke out shortly after midnight, a few hours following a basketball game in the school's gymnasium. Chief Richardson asserted that the first fire fighters on the scene were faced with a "wall of flame" when they attempted to enter the burning building.

Stamford school officials estimated it would cost $2,700,000 to replace the structure, which was erected in 1896 as the first high school in that city. It took Stamford firemen four hours to bring the blaze under control, the 15-degree temperature and icy pavement hampering their work. As a precautionary measure during the early part of the fire, police ordered several families in nearby dwellings to evacuate their homes. None of the neighboring homes was damaged by the fire.

Firemen were able to keep the flames from reaching a 5,000 gallon fuel oil storage tank in the school's boiler room. During the four hour battle firemen poured water onto it from 17 hose lines. The blaze at one time was visible from the Merritt Parkway, two miles distant.

—Tom Magner

Flames and smoke pour from Burdick Junior High School in Stamford, Conn., during fire on December 22, which caused damage of $2,500,000 to the 58-year-old three-story structure. One fireman was injured fighting the general alarm blaze.

Station No. 10, Jackson's newest.

Jackson, Miss., Dedicates New Station

The newest fire station in Jackson, Miss., No. 10, was formally dedicated December 21st, 1954, at ceremonies headed by Mayor Allen C. Thompson. Chief Leroy F. McDonald is head of the department, which rates with the topmost organizations in the state in efficiency and facilities.

The new station is located on Livingston Rd. north of 5 Points, and protects the growing northwest section of that city. It houses a 1000 G.P.M. pumper and 65 ft. Junior Aerial. The present company personnel consists of 19 officers (four captains) and men who work two shifts.

In design and construction the new station embodies all the latest improvements for the convenience of men and housing of the equipment: fire resistive construction throughout; sliding poles and hose drying tower eliminated; a generous ramp and attractive landscaping.

The men sleep in a spacious dormitory and prepare their meals in a smart, well equipped "Youngstown" kitchen. Each shift has its refrigerator to keep staples, furnished by the men, separated.

A small den separates the kitchen from the dormitory. A large locker room and tile shower room are provided for convenience of personnel.

The main lounge and watch room contain the latest communications systems, including P.A.; a "scoreboard" to indicate units in service, and out of service; tape receivers; telephones, etc.

The company's fire district and boxes to which it responds is indicated on a large wall chart.

Long Beach Produce Fire Causes $50,000 Damage

A severe fire in a Long Beach, Calif., produce warehouse caused $50,000 damage, Jan. 5, and only a fire wall prevented loss of the entire block-long building.

Fire Chief Frank S. Sandeman directed six companies in fighting the fire, which started at 12:30 a.m. in the wholesale district. Chief Sandeman said his preliminary investigation indicated the blaze started from defective wiring.

Three produce establishments in the warehouse were destroyed and a fourth damaged. Chief Sandeman said only the presence of a concrete wall prevented the flames from sweeping the remainder of the long one-story warehouse and gutting a cabinet shop, a paper bag company, a distributing firm and a hospital storage room. The warehouse is located on 14th Street from Daisy to Oregon Avenues. No one was injured.

—Paul Ditzel

Housewife Proves Efficient Dispatcher

Except for a bed and a bureau, the bedroom of Mrs. Olive Jorgensen of (625 E. 175th St.) Seattle, Washington, looks more like a combination firehouse and communication center than it does a home.

Mrs. James Jorgensen of Seattle is never far from her job as dispatcher of King County Volunteer Fire District No. 4. Close by her bed are two radio transmitter-receivers and quick-call pushbuttons which give her instant control over 15 fire trucks, four volunteer companies and even traffic signals at a major intersection.

Three telephones hang on a wall beneath a shelf stacked with radio transmitters, above a desk covered with more equipment, a dozen pencils and a log book.

A pair of firemen's boots, their tops hidden in the legs of firemen's heavy duck trousers, stand nearby, ready to be donned with a jump and a tug—beside a coat and helmet. These belong to Mrs. Jorgensen's husband, James, a volunteer fireman in King County Fire District No. 4.

Mrs. Jorgensen uses the rest of the equipment. She is the fire dispatcher for the district, covering 12 square miles. When any of about 25,000 residents in the district have fire trouble, get locked out, need first aid quickly or have anything from a broken water pipe to a flooding furnace, Mrs. Jorgensen is usually the first to hear about it.

As dispatcher, Mrs. Jorgensen calls the signals for three fire stations, dispatching the amount of equipment she deems necessary, alerting other stations through the radio "intercom" equipment. At the push of a button on her desk, she can remotely turn on radio loudspeakers in the homes of the fire chief and four assistant chiefs. She also can use the Motorola "Quik-Call" to sound the sirens at four remote fire houses, which in turn call out the volunteer firemen.

Recently there has been added still another button which radio controls the traffic signal on a major arterial road, giving fire trucks priority to cross.

If more help is needed, Mrs. Jorgensen can summon the neighboring Snohomish Fire Department, whose radio channel she monitors constantly. In addition to her own District No. 4, she serves as dispatcher for the 11 mobile units in neighboring Districts No. 14 and 16 which do not have base station radios.

"You'd think no woman in her right mind with a family the size of mine would take a job like this," Mrs. Jorgensen says, "but I like it. It's interesting. It's fun, but it's inconvenient, too. "Can't go across the street for coffee. I'm married to those telephones and except for 20 hours relief (by substitute radio operator), I'm stuck here. Can't run my mixer in the kitchen very long because I might not hear the telephone. Have to keep shutting it off and on. I've worn out three mixers in five years."

Fog Installation Guards Electric Equipment

More than 2200 gallons of water per minute shower from 90 nozzles in a test operation to check the efficiency of the water fog system shown in the illustration herewith. This fire protection system guards more than a half-million dollars worth of transmission equipment to ensure a continuing flow of power from the Eastlake power plant of The Cleveland Electric Illuminating Company.

Center foreground is the main transformer; right, the end of a bank of oil circuit breakers; and, out of the picture but behind the main transformer are two station transformers. To the right is Lake Erie. The transformers and circuit breakers contain over 14,000 gallons of combustible oil. The electrical transformer group feeds power from one of the 140,000 KW turbogenerator units.

When completed, the plant will have a capacity of more than 1,000,000 KW, constructed at a cost well in excess of $125,000,000.

Pictured is unit number three of three identical water fog systems designed for the Eastlake plant.

Water is released by any one of a series of rise heat actuated devices which electrically open the deluge valve when the temperature rise is from 15 to 20 degrees Fahrenheit per minute. The system can be operated by switches in the turbine room, which is adjacent to the transformer deck.

The installation is surrounded by Lake Erie. Water from the lake is used in the fog system and is drawn from the station service water lines in which pressure is normally maintained at 175 pounds per square inch.

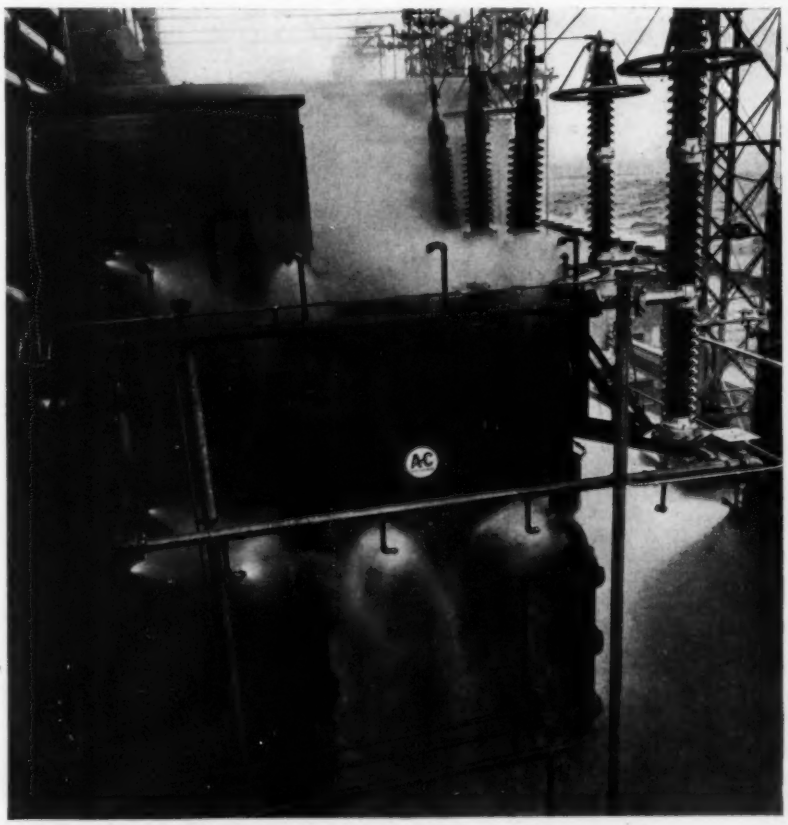
Fatal Heating Pad Fire

A 63-year-old woman was burned almost beyond recognition on Oct. 25 in Norwich, Conn., when a heating pad set fire to a studio couch on which she was sleeping.

Fred Tourtellotte, a retired Agawam, Mass., fireman, a visitor on the floor below, found the body of the victim after forcing the door to her apartment. Investigation revealed that she had been ill and had been using the electric heating pad for some time.

Norwich firemen expressed the belief that the couch had smouldered for quite a while before it burst into flames.

TOM MAGNER.



Fog system of Cleveland Electric Illuminating Company plant.

Utility Truck Designed for Convenience

"A place for everything, and everything in its place" is an old motto put to modern application by the Aberdeen, S. D., Fire Department, and exemplified in its smartly arranged utility truck.

The unit was designed by Chief B. L. Mehner and Asst. Chief C. J. Myers and came about as the aftermath of a fire in the South Dakota city in which 18 firemen were overcome by smoke and gas while fighting the blaze.

Shortly after leaving his bed in the hospital where he and his men were taken from the fire scene, Chief Mehner went into action, and phoned his order for breathing equipment.

But this was only the first step in the plan. The next was to have them available so that no time would be lost in the men getting them and putting them to good use. This involved the principles of transportation and stowage and accessibility.

The solution was found in the department's utility unit, which answers all calls and which carries compartmentization in full. It houses such essentials as an electric generating plant, forcible entry tools, 100 feet of ladders, first aid supplies, 40 gallons of foam chemicals, 10 salvage covers, 750 feet of 2½-inch hose, 200 feet of ¾-inch booster hose and 400 feet of 1½-inch hose.

And tucked away, but readily available, in a series of separate shelves are 10 Chemox apparatus units.

Fast fire attack and rescue are major objectives of the 26 members of the Aberdeen Fire Department, who serve a population of more than 26,000. And few things contribute more to fast attack and rescue than modern breathing equipment.

In the Aberdeen Department no precious seconds are lost by fire fighters, in getting masks, for a turn of a handle on the utility rig is all that is necessary to uncover the breathing apparatus, all ready for action. Canisters containing the oxygen generating chemical are stored in the compartments alongside the breathing apparatus.

Compartments on the driver's side of Aberdeen's utility truck contain a variety of items—salvage covers, rope, forcible entry tools, gas masks, first aid equipment.

Greenbriar F.D. Holds Fog Test

Chief Lloyd M. Steele of The Greenbrier Fire Department recently conducted an experiment in fighting fire with fog nozzle equipment. Representatives from the fire departments of White Sulphur Springs and Covington, Va., witnessed the test.

A one-room shack that the hotel had condemned was turned over to Chief Steele for the experiment. It was arranged to represent a living room, and was furnished with cabinets, racks and rugs.

The fire was ignited at 2:03 P.M. At 2:07 two firemen broke through near the eaves of the building. A one-and-one-half-inch hose line, 100 feet long and fitted with a fog nozzle was turned on at 2:08 and cut off 20 seconds later. When the doors were opened to permit steam to dissipate, there was no fire to be found in the building. During the 20 seconds that the fog nozzle was in operation, thirty gallons of water were used. A ¾-inch booster line with ¼-inch straight tip was used for mopping up. A total of 50 gallons of water was used in extinguishing the blaze and the mopping up.

Examination of the charred interior of the room indicated that the temperature of the fire had approached 1,000 degrees F. According to Chief Steele, the experiment demonstrated that considerable fire can be extinguished with a small amount of water through the indirect application of fog, if conditions are right.

Greenbriar, Va., fire fighters experiment with indirect application of water fog in a burning test. Claim fire was controlled in 20 seconds, by 1½-inch hose line and fog nozzle, using 30 gallons of water.

One Killed in Blast at L. A. Rubber Plant

A flash fire from a blast in a giant rubber compounding machine killed one worker and burned five others at the United States Rubber Co. factory in East Los Angeles, Calif.

The explosion occurred at 9:30 a.m., Jan. 21, in the milling and compounding department of the plant employing 2200 workers. Fumes in a two-story compounding machine ignited and exploded.

The six men working nearby were burned when showering flames and fiery rubber set fire to their clothing. The blaze was controlled by the Los Angeles County Fire Department.

Although production was not affected, damage to the plant was set at $5000. One of the least seriously burned workers credited his long underwear with saving his life. He said fellow workmen often wore T-shirts or light clothing but that he learned to wear heavy clothing to guard against burns when he was in the Navy.

PAUL DITZEL

Boston Fire Chiefs' Organization Chartered

The Commonwealth of Massachusetts has issued a corporate charter to the Fire Chiefs' Association of Boston, Inc. Formed two years ago, the organization meets monthly in Boston's Hotel Statler. Chief J. Herbert White of Roslindale is president. The above picture was snapped at the informal ceremonies on Beacon Hill and shows president White receiving the charter. Present, left to right, are: Chief Edward J. Galvin of Roxbury; Chief Charles D. Travis of West Roxbury; Secretary of State Edward J. Cronin; Chief White and Chief Patrick E. Collins of Brighton.

Heater Starts Quarter-Million-Dollar Fire

A flash fire, which apparently started by an explosion in a forced air heater in a one-story cement building, swept through the plant of the RCA Service Company at East Haven, Conn., on Jan. 17, causing damage estimated by fire officials at more than $250,000.

The entire interior of the office and service building was swept by the blaze, which also broke through the roof in several places. The Company is a subsidiary of the Radio Corporation of America, and occupies a cement block building.

Six employes escaped from the plant without any serious injuries in a blaze that quickly destroyed 100 television sets, as well as hundreds of tubes and other accessories. The plant, which employs 12 persons, is used for making major repairs and overhauling television sets. Six color sets, valued at $1,000 each, were destroyed by the flames.

East Haven firemen, under command of Fire Chief Thomas Hayes, were hampered in their attempt to control the blaze because of a shortage of gas masks. The East Haven department actually had only two masks and additional gas masks which had been requested in the 1955 town budget were among the items cut out when the annual town meeting in October, 1954, reduced the proposed tax rate.

The alarm was received at 12:41 p.m. Engines 1, 6 and Truck 1, from East Haven headquarters, and the Riverside Company responded, and were assisted by 25 volunteer firefighters.

TOM MAGNER

St. Louis Adds Smart Canteen

The St. Louis, Mo. Fire Department is the proud possessor of a smart, modern, bus canteen (and emergency rig), which is the result of joint efforts of Director of Public Safety, Joseph P. Sestric and his friends at the Public Service Company of St. Louis, and the department's repair shop, F. H. Witler, Master Mechanic.

All the equipment shown in the accompanying pictures was built at the Department Repair Shops, including the cabinet work, the latter being used to carry first aid equipment.

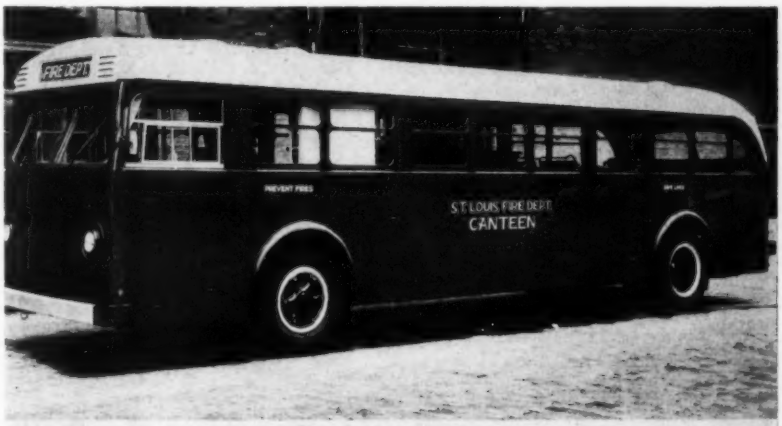
The bus has been wired for 110 volt lights, a ventilator fan, and a circuit for hot plates. The current is supplied by a portable generator. Heat is furnished by two hot water heaters and the vehicle has been piped so that running water is avaialable when the booster line is laid from hydrant or nearby pumper.

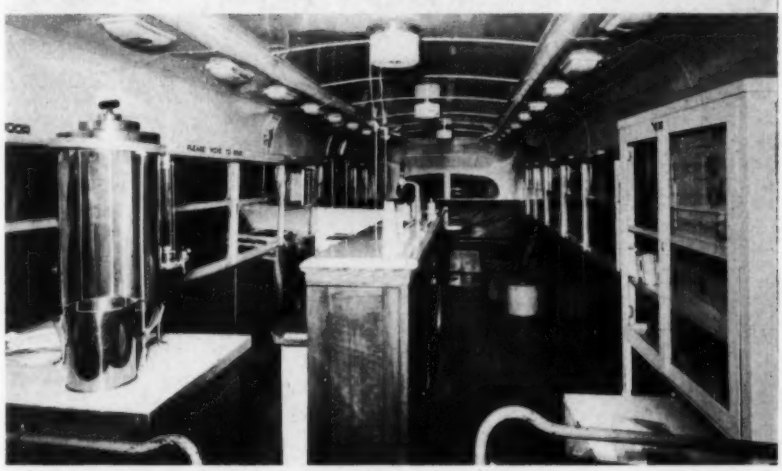
A two-way radio has been installed so that the unit may be at all times in contact with fire alarm headquarters. Provision has been made for a loud speaker at the top of the bus, over which announcements and orders can be broadcast. Walkie-talkie equipment also is to be provided, which will permit communications between the officers at the fire and the bus, which can thus serve as a communications GHQ.

New York Completes State Mutual Aid Plan

The operation of mutual aid, a planned program encompassing the volunteer and paid fire departments of New York State, in a setup designed to bring assistance in the event of fire or disaster to any stricken area, is presented in a new book issued by the Division of Safety, State of New York. Entitled "Guide to Fire Mobilization and Mutual Aid Plans in the State of New York," the program was developed under the direction of the State Division of Safety and its Bureau of Fire Mobilization.

New York State's 57 counties and the City of New York are included in the overall plan which also reaches across the international border into Canada





Top: St. Louis Fire Department boasts a completely equipped mobile canteen. Bottom: Interior of St. Louis Fire Department canteen.

and adjacent states including ten counties in Pennsylvania, four in New Jersey, five in Connecticut, two in Massachusetts, four in Vermont and one in Rhode Island.

In New York's program a County Fire Coordinator, having called for fire mutual aid from his own county and adjoining counties, may request activation of the State Fire Mobilization and Mutual Aid Plan by contacting executives of the State Division of Safety. A schedule is included listing the men authorized to activate the state plan and their telephone number on a 24-hour basis. The State Fire Control Center office is located at 17 Elk Street, Albany, and has 24-hour telephone service available.

The Guide, said to be the first of its kind, may assist other states throughout the nation in the preparation of their plans, represents months of research at all municipal levels by the Division.

Istanbul's Famous Bazaar Fire Swept

From Ankara, Turkey, comes word that, early on the morning of Nov. 27, Istanbul's 500-year-old covered bazaar, one of the largest and most famous of today, and a favorite tourist attraction, was practically destroyed, with huge property loss.

The bazaar, a vast, covered city of almost 4,000 shops that sell rare antiques, rugs, jewelry, copperware, silverware, weapons, clothing, furniture and countless other items, was built around the ruins of the ancient Royal Byzantine stables founded in 1461, by Sultan Mohammed II, and covered a labyrinth of 65 streets, and miles of stone-roofed allays.

According to first reports, fewer than half the area survived the fire, which was believed caused by a short circuit in a cotton mattress shop. Istanbul's fire chief and ten firemen sustained burns and other injuries in vain efforts to enter the bazaar. The heat from the fast spreading fire was so intense that parts of the lead roof and large iron gates leading to the bazaar melted.

The entire city fire force with 75 engines, fought five hours to control the blaze, which lit the area for miles around. Millions of gallons of water were pumped into the flames, and when hydrants ran dry, water was pumped from the harbor.

Early estimates of losses were given by officials at 200,000,000 to 500,000,000 liras ($71 million to $178 million).

Aerial Ladder Serves as Emergency Radio Mast

An idea developed by a Chicago radio engineer may mean the difference between solid communication or the lack of it in future disasters.

Joseph M. Hadfield, radio consulant to Chicago Fire Commissioner M. J. Corrigan, hit on the idea of utilizing a fire department aerial ladder as an emergency antenna support for fire and police radio stations in case the regular tower is knocked out.

Tests conducted in Chicago and Milwaukee have proved the plan to be thoroughly workable.

This means any city with an aerial ladder truck can erect its own transportable antenna mast with as little as 10 minutes of make-ready time.

Required are an antenna which can be clamped or taped to the ladder top, and a 75 to 100 foot roll of coaxial cable for the feed-line. The radio can be either the fire truck transmitter or a fixed base station transmitter.

During the Chicago tests, output of a standard Motorola 30-watt fire truck transmitter was connected to the antenna elevated 68 feet. Signals were clearly heard in a cruising chief's car 90 blocks away — more than 11 miles. Hadfield and Norman Biorn, Fire Department radio technician, reported solid reception at every point along the city's boundary.

In the Wisconsin tests run by Hadfield and Henry Barnes, assistant superintendent of Milwaukee police and fire communications, a 10-watt fire truck unit was used as the temporary base station. Reception was generally very good.

Aerial ladder serves as radio antenna tower.

The Milwaukee tests were requested by Fire Chief Edward E. Wischer under a mutual aid agreement by which Chicago and Milwaukee operate their fire radios on a common frequency, enabling quick interchange of equipment as needed.

Although the most obvious application of the ladder antenna is for Civil Defense and disaster uses, it applies equally well to routine tasks such as antenna site testing and field strength measurements. In fact, it was Hadfield's need for a temporary antenna tower in testing the location of a proposed fire station that led to the first experiment.

Improvements Planned for Las Vegas Department

Ambitious expansion plans for the fire department in Nevada's fastest growing city, Las Vegas, have been outlined by Chief Elmer C. Gates.

Next spring voters of the desert community will be asked to approve a $500,000 bond issue calling for construction of two new stations and purchase of two to four new pieces of apparatus.

Funds also are included for a city-wide alarm system.

Under Chief Gates' plans, another of the city's three existing houses will be relocated.

Chief Gates took over at Las Vegas last spring, after 22 years of service with the Santa Ana, Calif., F. D. He was assistant chief there.

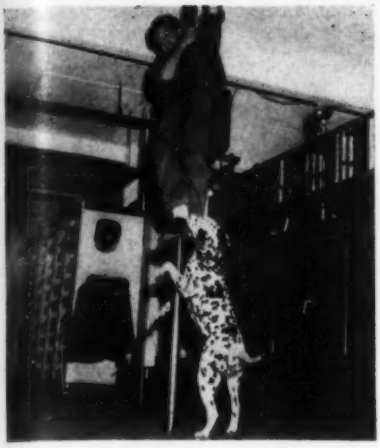
"We have a lot of unusual problems here in Las Vegas," he commented. "But we are making positive strides towards solving them."

The chief pointed out that in 1950 Las Vegas had 24,000 population, but today, mostly due to the boom in building of luxurious resort hotels and gambling casinos on the nearby county "strip," the population has zoomed to more than 50,000.

Herb McDonald, manager of the Chamber of Commerce, reports that unofficially Las Vegas is now Nevada's largest city.

"We just haven't kept pace in our fire department with the city's growth," the chief said. "Although the hotels are outside the city, most of the new homes

Turkish firemen wet down rubble as the sun streams through openings in the Turkish Grand Bazaar after it was hit by a devasting blaze. The world's biggest covered market place, the 500-year-old bazaar, covers an area of approximately 35,000 square yards.



Spanner's frolicsome nature is both his endearing and his annoying quality. He's always ready to play, and usually does.

As the lines are drawn out, Spanner is off in full pursuit of the hose.

Fire and fire control are the continual lessons in Spanner's life. Every few days this lesson is reinforced by another lesson. Here Spanner learns to paw out a burning match without harming himself.

and stores are in Las Vegas proper."

Chief Gates said that in looking forward to construction of the new alarm system, the Las Vegas F. D. is laying pipes in trenches being dug by the Southern Nevada Telephone Co. as part of the Telephone Company's conversion to dial phones.

"We're saving our taxpayers lots of money by this move," he pointed out.

Among other moves, the chief ordered formation of a Fire Prevention Bureau and named as its chief, Capt. Arthur Trelease. Five men serve in the bureau.

The department operates five engines, one 65-foot aerial, and a rescue squad.

Although paid departments operate in nearby Henderson and on the "strip" by Clark County F. D., the only mutual aid agreement in force at present is with the U.S. Air Force at nearby Nellis Air Force Base. —CLIFF DEKTAR

Fire Dog Joins in Department Tasks

Old-timers may opine that fire fighting is getting so new-fangled that the good old fire dog is dying out as a species—but not the members of South Portland, Me. Fire Department. Old-timers all get a kick out of Spanner, the Dalmatian fire dog of the Cash Corner station of the South Portland Department. Spanner is literally a fire-born dog. He was given as a pup, right out of a litter to the Cash Corner smoke eaters by a breeder of Dalmatians whose stocks were saved by the Cash Corner firemen. Today he's a full-grown, agile, intelligent dog.

Some people call him "Flying Spots," for when the alarm bell rings, Spanner is one whirr of fur heading for the seat in Engine #5. Firemen at Cash Corner honestly admit that Spanner doesn't really help them very much at the scene of a blaze. On the other hand, Spanner has located the origin of several brush blazes which the firemen had been unable to discover, because of the thick smoke.

Spanner's talents as a fire dog include climbing a ladder, recognizing the alarm bell (as differentiated from the telephone, which is on the same circuit) and turning strangely frenetic when the hose is turned on. Another talent, important to Spanner, is that he does his own shopping. When the spirit moves him, he ambles down to Lumbo Lano's grocery and selects a can of dog food, and hustles back to the fire house where it is opened for him, and sups. Once the firemen would send Spanner to the store with cash in paw to pay for the dog food, but Spanner had the disconcerting habit of returning to the fire house with the can, after having buried the change along the way.

Spanner, of course, was named for that indispensable, fireman's tool. In South Portland he is as valuable an adjunct as any tool.

Aerial Ladder Topples During Drill

Two Los Angeles, Calif., firemen were hurt when an extended aerial ladder toppled and pitched them to the ground during a routine drill.

The firemen, Theodore W. O'Meila, Jr., 24, and Robert E. Campbell, 39, were operating a 2½-inch line from the extended aerial when the rig lurched and the ladder fell slowly to the soft ground.

Newspaper reports said the freak accident might have been caused by one of the supporting jacks sinking into soft grave beside the roadway.

Fireman O'Meila suffered a frontal skull fracture when his head struck a rung of the aerial when it hit the ground. Fireman Campbell, who also rode the aerial down, suffered a sprained right ankle and cuts and bruises. O'Meila was operating the stream and Campbell was below him.

The mishap occurred at Sixth Street and Mission Road where Truck 4 commonly drills. The aerial was extended to 85 feet at the time of the accident.

The falling ladder wrenched the trailer and tractor onto its side.

—PAUL DITZEL

New York City Requires Flues for Gas Heaters

New York's Mayor, Robert Wagner, signed a local law on Dec. 15th, effective immediately, requiring flues or outlet pipes for gas water heaters in places inadequately ventilated or in any room in a multiple dwelling.

Under the law, persons notified of a violation must remedy it within ten days.

The measure was passed by the City Council as an urgent necessity, after a score and more of lives were lost toward the end of 1954, due to faulty gas heaters or connections.

L.A.F.D. Photo

Aerial ladder at Los Angeles after tipping.

New fire station of Moline Fire Protection District, St. Louis County, Mo.

Moline Fire Protection District's New Fire House

The Moline Fire Protection District of St. Louis County, Mo., recently effected improvements of its old fire house at Chambers Road and Clairmont Drive in North St. Louis which has helped the Fire District receive a class 8 rating on their fire insurance.

The new structure, which was dedicated June 13, 1954, is 68 feet wide by 44 feet deep. It is built of cement block.

The left hand door opens on the quarters of a 750 G.P.M. pumper. Room is provided for a small emergency truck also. Next to the apparatus room is the dormitory, which will accomodate up to 10 men; behind the dormitory are lavatories.

The small door leads to the office. Behind this is a hose tower and locker room with showers. The big door on the right is in the old section of the station and opens on quarters for a 500 G.P.M. pumper, with room for another piece of apparatus. In the rear of this section is the kitchen.

The Moline Fire Protection District employs two full time paid men.

Canvas Tanks Augment Water Supply at Fires

They have just one tank truck, with a capacity of 350 gallons, yet the fire fighting crews of the little town of Palmer, Massachusetts, were able to keep their pumps operating continuously for more than four hours, pumping almost 5,000 gallons of water at a recent large brush fire which broke out in an area almost two miles from any water source.

How they did it is told by District Fire Chief Victor M. French.

"Our first large scale test of Harodikes, portable, canvas tanks, which we had purchased to supplement our lone tank truck, took place about twelve-thirty one night when a fire broke out at Jim Ash Road, a remote sector of town.

"Fanned by stiff forty mile an hour winds, the blaze spread rapidly over seven acres and was threatening private property and the woodlands which surround the town.

"As soon as the call came in, I immediately dispatched our tank truck to the fire. We loaded one of our three hundred gallon canvas tanks on our emergency truck and another on my station wagon, filled them with water and sent them to the site of the fire.

"At the same time, via the two way radio communication system which we have with the neighboring town of Monson, I notified Chief Partelo to rush his apparatus to the scene. It happened that the Monson crew was returning from another fire with an empty tanker, but fortunately, they also had a Harodike tank on their truck.

"At the fire, when the water supply in our tanker was depleted, we inserted hoses into the canvas tanks, hooked them up to a portable pump and pumped through the tanker onto the fire. As soon as one canvas tank was emptied, we switched the hose lines to another one, sending the truck on which the original tank was placed back to the water source to be refilled.

"By shuttling the trucks back and forth in this manner, we were able to keep a constant supply of water pouring on to the blaze until just before daybreak when we brought it safely under control."

Commenting on the effectiveness of the portable tanks, Chief French declared, "These tanks give us a flexible supply of water wherever and whenever we need it. In the past, I have had to requisition tankers from milk or oil companies whenever a fire broke out which required a large amount of water in areas where we had no pipe lines. With the canvas tanks on our trucks to supplement our tanker, we are assured of as much water as we need for virtually any kind of fire."

The tanks were originally designed as forest fire protection equipment. They are completely collapsible when empty, a feature which was incorporated into their design in order that they could be folded and back-packed by individual fire fighters into areas which are inaccessible to motorized vehicles.

Their pyramidal shape and all-enclosed top makes them self-supporting when filled and prevents the entrance of foreign matter which might clog hose lines when they are used in relays on the ground for brush of forest fire fighting. The tanks have a low center of gravity, a feature which enables them to ride well with a minimum of tipping when transported on trucks traveling at high speeds over rough roads or around sharp corners.

When not in use they fold into a compact unit 17 inches by 28 inches by 13 inches for facility in storing. The tanks are available in two sizes, 150 and 300 gallons.

Pair of canvas tanks placed on flat-bed truck make an emergency 600-gallon tanker, ready to be used with portable pumps.

Blaze Cleans Out Cleaning Company

A 56-year-old Glendale, Calif., landmark was destroyed Dec. 24 by a $300,000 fire of undetermined origin.

The blaze destroyed the main plant of the Glendale Laundry & Dry Cleaning Co.

The fire was discovered about 4:50 a.m. by a night watchman. Three hours later nothing was left standing but a separate brick building to the rear.

Eight fire companies under Glendale Chief E. H. Aiman battled the fire and prevented damage to the Glendale Moose Lodge adjoining the plant.

—Cliff Dektar

11th Annual Purdue Arson Investigators' Seminar

The eleventh annual Seminar and Training Course for Arson Investigators will be conducted at Purdue University, Lafayette, Ind., April 25-29, 1955, it was announced by Professor Shelby Gallien, Director of Purdue's Public Safety Institute.

This seminar and training course offers opportunity for specialized study and discussion of arson investigation problems under guidance of outstanding police and fire specialists. It is conducted by the Public Safety Institute of Purdue University and, since its establishment in 1945, has achieved international recognition as the center for such specialized training.

Enrollees, who come from the United States, Canada and other countries, have opportunity to study and discuss specific arson problems of interest to fire department personnel, enforcement officials, insurance investigators, military personnel, laboratory technicians, court officials, pathologists, psychiatrists and others who through their activities have an interest in detecting and exposing arsonists.

Further information and complete details of the 1955 Arson Investigators' Seminar are available from the Public Safety Institute, Purdue University, Lafayette, Indiana.

Collection Taken Up at Fire

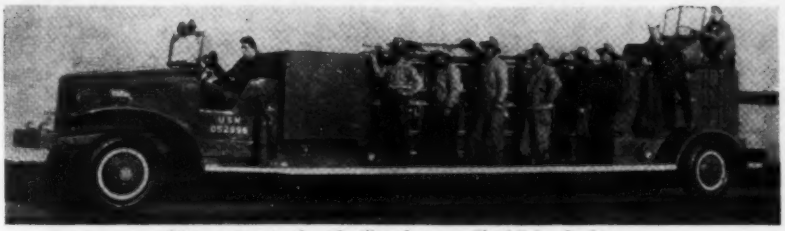
What may have been the first "benefit fire" ever staged in the United States leveled an old house at Westport, Conn., on December 15, and helped raise money to furnish a new one.

The new house, built in Weston by volunteer efforts of Westport, Weston and Norwalk people, will be occupied by the widow of Herbert S. (Mike) Welch, newspaperman, who died of polio in 1953, and her three children.

The old house was on property owned by Francis J. Finneran, Westport contractor, who was a leader in the movement to build a new home for Mrs. Welch, herself a polio victim.

Mr. Finneran wanted to get rid of the old house, built before the Revolutionary War, to make room for a construction project. So he decided to burn it, and advertised the fire well in advance to attract as big a crowd as possible.

About 300 persons showed up at the site across the Boston Post Road from the State Police Barracks. Auxiliary policemen circulated through the crowd collecting contributions for furnishings in the Welch home. Westport firemen "stood by" with charged hose lines during the "benefit fire."—Tom Magner



City service truck with tiller that was "built" by Seabees.

City Service Truck With Tiller

A couple of surplus 2-ton trucks, placed back-to-back and welded together, are giving U.S. Fleet Activities of Yokosuka, Japan, increased fire safety and are providing an apt testimonial to the Seabee ingenuity of the Base Public Works garage. Cruising about the base is the Fire Department's pride and joy, a ladder truck "built" entirely by Navy Seabees. It is answering a long-felt need for a truck long enough to carry 60-foot ladders—ladders capable of reaching the top of lofty base warehouses.

Chiefly responsible for the achievement was a pair of Seabees, C. R. Edwards, and J. E. Jones. Edwards is supervisor of the Body and Fender Shop and Jones, who has since returned to the States, was supervisor of the Rehabilitation Shop. They put their plan before Public Works Transportation Officers, Commander A. J. Riley, Lt. C. J. Champion, who finally agreed that the job could be done and gave the project the go-ahead.

A pair of junked 2-ton trucks were selected by the Seabees and along with 8 Japanese body and fender men, 4 mechanics, and 2 painters, they set to work on a rough, experimental model. They welded together the rear of the two trucks, bracing it along the middle with four supporting beams. Three days later a strange unpainted contraption with one man steering in front, another steering from the back, was chugging about the base. This was the engine's preliminary test for road traction and maneuverability. The main problem was the steering mechanism in the tail of the truck. Because of the length—slightly more than 36 feet—it was necessary to steer the vehicle from both front and rear wheels to negotiate corners. It also required front-wheel drive. A conventional drive shaft extending from the motor to the rear wheels would never have stood up under the torque.

With the steering problems eliminated, the crew further rehabilitated their creation. The old chassis was closely inspected and new parts installed where needed. The chassis was set up with a water-tight compartment housing breathing apparatus, asbestos suits, hats, a fire chute and other gear. Provision was made for the truck to carry four 60-foot ladders, two 12-foot and two 25-foot ladders, and the regular fire fighting equipment such as, lanterns, fire axes, crowbars, wrecking bars, plaster hooks, and an extinguisher.

Fire Chief R. G. Eiffer said, "Public Works showed tremendous ingenuity. They came through when no other ladder truck was available to us." (Hook and ladder trucks are unavailable in Japan and prospects of latching on to a Stateside model looked dim when the Fire Department first came up with the idea of building one at the base.)

Acknowledgement: From CEC Bulletin, Published by the Seabees.

An estimated 300 persons witnessed the burning of this house on the Boston Post Road, Westport, Conn., on December 15, and paid a fee to do so. It was an advance publicized "benefit fire" to help the widow of Herbert S. Welch, newspaperman, who died of polio in 1953. The fund collected at the fire will help to purchase furnishings for a home erected for Mrs. Welch in Weston.

Etobicoke Firemen May Operate Ambulances

Etobicoke, Ont., permanent firemen may soon operate two ambulances to cover the entire district of Etobicoke. The City Council recently received a report from the board of health which recommended the municipality purchase and operate two ambulances, one from Royal York Road Fire Station and one from the Rexdale Fire Station. This action was due to the local funeral director discontinuing the operation of ambulance for emergency calls. According to Deputy reeve Ed Horton, this is the only feasible way to take care of the ambulance problem.

—J. K. Lee

Only the JOHN BEAN HPV* FIRE-FIGHTER has all these features

*HPV — the two-fisted fire-fighter with both High Pressure Fog and Volume pumps (plus John Bean High-Pressure Sno-Foam at low extra cost).

TRUE HIGH-PRESSURE AND MULTI-STAGE PUMPS OPERATE SIMULTANEOUSLY

Operate them together or singly — the John Bean High-Pressure Fog piston pump, delivering 60 GPM at 850 PSI pump pressure — and the John Bean centrifugal volume pump, providing a smooth flow at 500, 600 or 750 GPM.

DUAL BATTERY SYSTEM
Auxilliary battery insures against starting failures.

VACUUM-OPERATED PUMP SHIFT
Quick, positive, trouble-free shifting of volume pump.

THE PATENTED JOHN BEAN FIRE-FIGHTER GUN

The fireman has perfect control of stream patterns with this famous gun. Instant on-and-off control of discharge with one hand — other hand rotates barrel for a complete range of fog patterns. Face-protector spray allows fast, close approach to hot fires. Hose extending from back of gun provides straight-flow waterway for best performance and easiest handling.

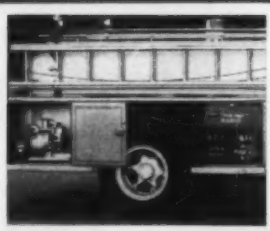
STANDARD TRUCK CHA

This two-fisted fire-fighter stops fires faster!

The "HPV" gives you two lines of fast-striking John Bean High Pressure Fog . . . the *origina* high-pressure fog . . . dis charged from the guns at 60 to 700 PSI nozzle pressure. Onl this true high-pressure fog ha such effective triple action – to cool, to smother, to isolat flames in seconds — with 90%

OVER 45 CUBIC FEET OF WEATHERPROOF STORAGE SPACE

Five, large capacity, lighted compartments are built in—one tailored for slide-mounted generating equipment; another for portable water pump. Compartments are fitted with easy opening, flush-type door latches.



...TERIZED COMPARTMENTS

...vable enclosures win- ... the two reel compart- ... These, as well as ... valves, gauges and ...ols, are warmed by en- ... heat.

POWER REWIND HOSE REELS

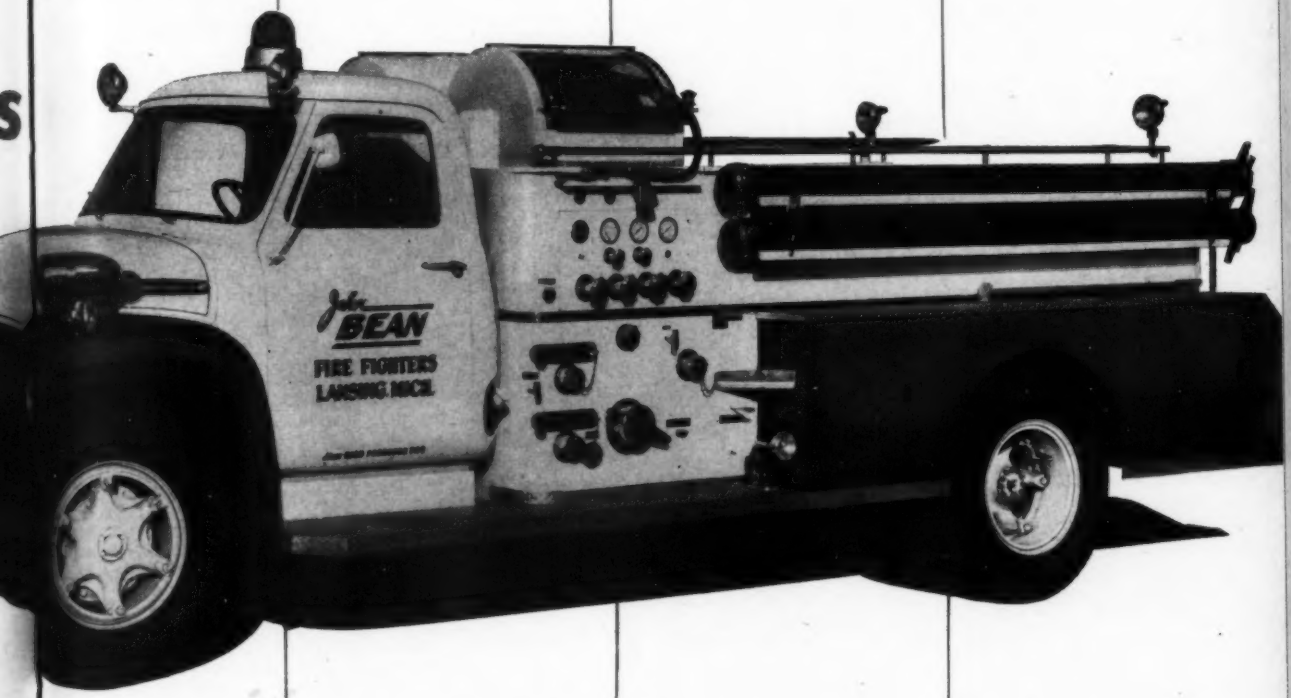
Faster, easier hose pick-up with power operated reels. Hose lays out smoothly and easily over roller guides.

400 FEET OF HIGH-PRESSURE HOSE

The 200 feet of special, 3500 pounds burst test hose on each reel can be easily handled by one man.

SPACIOUS HOSE BED

Smooth, level hose bed is properly ventilated, carries 1200 feet of 2½-inch and 400 feet of 1½-inch volume hose.



...MINATED ...TROL PANEL

...uges, valves and con- ...are centralized for in- ... operation — illumin- ... for safety and easy ...g at night.

BONDERIZED FINISH

For longer life and better paint finish, patented bonderizing process is used on all metal surfaces.

40 FEET OF SUCTION HOSE

Standard equipment includes two 10-foot lengths each of 2½-inch and 4½-inch hard suction hose, complete with hydrant adapters and suction screens.

500-GALLON, 10-GAUGE STEEL TANK

Smooth cornering, starts and stops assured by six-compartment tank with low center of gravity. Prevents undesirable water surge.

...hn Bean Fire-Fighters can be mounted on most standard truck chassis

... water damage. Fire extin- ...shing value of water is in- ...ased by a ten-to-one ratio — ...es the 500 gallons of water ... the truck go ten times fur- ...r.

...d to this, the truck's multiple ...s of hard-slugging, Under- ...ers' approved volume ...oms and you have an un- ...table combination. Two ...t John Bean pumps . . . ... proven methods of fire- ...ting. Use them separately ...oth at the same time — in ... combination. And for fighting grass and brush fires, use high-pressure fog while the truck is in motion.

Because they're designed by firemen . . . men who've fought fire under all kinds of conditions . . . John Bean equipment is designed right for ease of operation. Arriving at a fire, you're in business with four easy steps. Put pump in gear, step out of cab, open valve, adjust throttle for RPM — and presto! your lines are ready for instant action.

The proof is in the doing.

See for yourself what a John Bean HPV Fire-Fighter will do for your community's fire safety. In Lansing, Michigan, you'll get expert instruction and actual practice in volume and high-pressure fog methods at John Bean's Fire-Fighting School. In the meantime, why not contact your local John Bean representative, or write factory direct. In many localities, a demonstration can be arranged for you.

...K FOR THE JOHN BEAN HPV CATALOG

JOHN BEAN fmc

Dept. 126, Lansing 4, Michigan
P.O. Box 145, San Jose 3, California

A Division of Food Machinery and Chemical Corporation

News of the Manufacturers

Honeywell Announces New Home Fire Alarm System

A new fire alarm system has been announced by the Minneapolis-Honeywell Regulator Company, Philadelphia 44, Pa.

The new alarm consists of a single bronze-finished fire alarm panel and up to 30 fused-link temperature detecting elements to be strategically placed throughout the house. A fire in any part of the home or garage is detected by one of the temperature-sensitive elements which energizes the alarm signal. At the same time it turns on a light on the master panel showing the homeowner the zone in which the blaze is located.

The 5¾ by 8 inch panel is mounted on a wall in the bedroom, central hallway or other location where it can be seen and heard at all times by someone in the house.

It is designed for three "zone" circuits, each of which can be connected to as many as 10 detecting elements. The button-like sensing elements are mounted in the ceiling or high walls where they can readily "feel" any abnormal rise in the surrounding temperature. Normally, the elements activate the alarm circuit and turn on the warning light at 140 degrees F. High temperature types (175 degrees F.) are available for installation in furnace rooms, attics and other areas where higher temperatures are normally maintained.

Controlator

A hand operated high pressure auxiliary hydraulic cylinder, known as the Controlator, designed to give the apparatus operator more control over stopping, holding, and starting operations, has been announced by Power Equipment Co., Good Pased, Kansas City, Mo. It contains a fluid chamber, piston and operating mechanism, and is equipped with a line pressure gauge, for installation on the steering column directly below the steering wheel. It applies between the master cylinder or power brake and the wheels, and both gauge and cylinder are in full view of the operator at all times. This device provides a means of gradually applying and releasing the brakes by hand in those cases where both feet are busy.

In operation, it is said to be a combination hydraulic power brake, brake lock and hand control. The manufacturer claims the three following exclusive features: the only hydraulic brake that carries fluid and power in reserve for emergencies; the only hydraulic hand control allowing brakes to be gradually applied or released; the only brake or brake lock equipped with a line pressure gauge so the operator knows the amount of brake pressure needed or applied at all times, and providing a means of checking the hydraulic system for weaknesses from his seat in the cab.

The Controlator is used only when desired by the operator. As the operation of this device is mechanical, it can be operated whether or not the engine is running. And it does not interfere with the use of conventional brakes. It is intended for installation of any hydraulic brake truck—and comes complete with mounting bracket, tubing and fittings needed to make the installation.

FWD Appoints Danley

Arthur J. Danley, advertising and sales promotion manager of the Four Wheel Drive Auto Co. of Clintonville, Wis., since 1952, has been appointed director of public relations, it was announced by G. F. DeCoursin, vice president in charge of sales.

Arthur J. Danley

Danley joined the advertising department of FWD, manufacturer of four and six-wheel-drive heavy duty trucks, in 1933. He was named assistant advertising manager in 1940 and advertising manager in 1949.

The public relations position is a new one in the FWD organization. The company recently launched an intensive sales and consumer education program.

Cycle-Flo Introduces Portable Oxygen Unit

The Cycle-Flo Company, Milford, Conn., makers of the masks under that name, has introduced a new lightweight, portable but compact oxygen unit, suitable for use by fire departments, rescue squads, in hospitals, homes and doctor's offices.

The unit includes 2 oxygen cylinders, flow regulator, 2 disposable masks, all contained in a traveling case with total weight 17 lbs. Enriched air is supplied up to 1 hour at high rate, and up to 2 hours at moderate rate.

Complete information may be had by writing the company.

New VL Extinguisher Liquid

Development of a new extinguishing agent for VL extinguishers has been recently announced by Isaac N. Beall, Senior Chemical Engineer of the Ralph M. Parsons Co. of Los Angeles, Calif. This new agent is known as "CM-7."

Regarding "CM-7," the inventor states that it "is the only such vaporizing liquid on today's market which cannot generate toxic gases when used to extinguish fires and which, in fact, when so used, tends to retard the normal toxic gases produced by fire itself."

Some other features claimed for the liquid by the inventor include:

1. Phosgene gas cannot result from the application of CM-7 to a fire.
2. Average boiling point, 152.5 degrees F.
3. Carbon monoxide is completely inhibited when the fluid or its vapor comes in contact with fire.
4. It has a freezing point of —56 degrees F.
5. Electrical resistance is 4.4×10^{-7} Mho/Cm^3

Isaac M. Beall, before joining the Ralph M. Parsons Co. in 1953, was with the Chemical Corps, Department of the Army, from 1929 to 1953. He was Chief of Engineering of the Chemical Corps at the time he left that organization to join the Parsons Co.

H. L. Blom Named Manager of Communication Equipment by G.E.

The appointment of Harold L. Blom as manager of marketing administration for communication equipment was announced recently by the General Electric Company, Syracuse, N.Y.

In making the announcement, Lacy W. Goostree, manager of marketing, said that Mr. Blom will develop and carry out marketing administration programs and policies which include forecasting sales and scheduling production.

Blom is a native of Fargo, North Dakota, and attended the Wharton School of Finance, the University of Pittsburgh and Western Reserve University. He joined the General Electric Company at Schenectady, N.Y. in 1925 in the company's business training course. He served with the Apparatus Sales Division at offices in Philadelphia, Pittsburgh and Cleveland before coming with the Electronics Division in 1945 as assistant manager of credits and collections.

New Catalog by Bullard

A new safety equipment catalog has been prepared by the E. D. Bullard Company, manufacturers of safety equipment. This catalog is designed to give complete information on all Bullard safety products in a quick and efficient manner. On all pages photographs of the items being explained are shown along with easy-to-read technical data.

The catalog is available, upon request, from the E. D. Bullard Company, 275 Eighth Street, Department 531, San Francisco 3, California.

Scott Ads to Stress "Fire Attack"

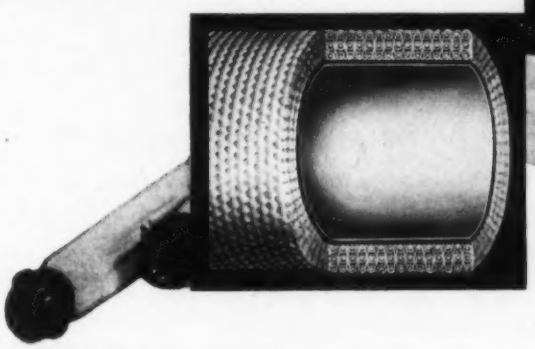
"Yesterday Fires were Fought by Defense—Today it's Fire Attack!" Selecting this theme for their 1955 Advertising Campaign the Scott Aviation Corporation enters the crusade for more positive, modern, fire fighting techniques and emphasizes the importance of self contained breathing protection equipment, the number one requirement for effective fire attack. Such equipment enables the fire fighter to enter dense smoke to locate the heart of the fire and extinguish it before it can gain headway. Self-contained breathing apparatus is also a valuable aid in rescue work. Many cases are on record where firemen equipped with such apparatus have

"See how easily it bends and coils when it is Multiple-Woven with DACRON filler cords!"

OF COURSE you can still buy *all-cotton* EUREKA MULTIPLE-WOVEN fire hose . . . but you'll be amazed at the approximately one-third *lighter weight, increased flexibility* and *greater strength* of this hose when it's woven with filler (circular) cords of DACRON*.

You still get all the benefits of EUREKA'S exclusive circular-multiple-woven jacket that cannot harbor water or dirt between its plies; its smooth-surfaced rubber lining that permits maximum nozzle pressure; the high abrasion-resistance of its outer cords of cotton warp yarn and all the other features that have made EUREKA MULTIPLE WOVEN famous for its long life and long-range economy. In addition, DACRON filler cords give you a truly superior hose that is even easier and safer to use . . . lighter and faster to drain, coil and repack!

Whether you order all-cotton or DACRON construction, don't overlook the added satisfaction of buying your fire hose from a fire hose specialist!



Note how criss-crossing vertical cords tie all plies into a single jacket.

*Du Pont's trade-mark for its polyester fiber.

"For greater protection to life and property"

EUREKA FIRE HOSE

Since 1875, Specialists in Manufacturing Circular-Woven Rubber-Lined Fire Hose

195 Hudson Street • New York 13, New York

Division of United States Rubber Company

entered smoke filled areas where it was necessary to grope their way about to locate and finally bring out persons who otherwise would have surely perished. Examples of unusual rescue work, citing authentic cases, are brought out in this advertising program.

Considerable time and research have been given the subject of fire attack to make the series of ads, authentic, interesting and thought-provoking. Photographs of actual fires of the past will be illustrated showing the heavy losses which resulted from the futile efforts of obsolete fire defense methods.

Fireye Appoints Carlson

The appointment of Norman E. Carlson as industrial sales manager of the Fireye Division of Electronics Corporation of America, Boston, Mass., was announced recently by E. Douglas Reddan, vice president of the Division.

Norman E. Carlson

Mr. Carlson brings to his new post an extensive experience in the field of fire protection. For a number of years he was associated with the Factory Mutual Engineering Division (Boston, Mass.) both in the Factory Mutual Laboratories and in their Field Engineering Service as a chemical engineer and inspector in New York City, and as a resident engineer in Rochester, N. Y. Subsequently, he entered the field of industrial and commercial sales of fire protection equipment with Fenwal Incorporated.

New Fire Hose

Hamilton Rubber Mfg. Corp., Trenton N. J., recently announced the addition of Flexrite fire hose to its line of industrial rubber products.

Flexrite employs Dacron, a Du Pont trademark, which is a chemically produced polyester fiber as filler cords in both inner and outer jackets to give maximum strength.

Flexrite is supplied in 1½" I. D. and 2½" I. D. double jacket construction with 40 pounds test pressure.

New Fire Resistant Chemical

A detailed informational booklet on the recently-introduced fire resistant chemical, Borotherm, has been issued by American Potash & Chemical Corporation.

The brochure, which covers all available information on the new product, including fire test information, has been issued as a guide for the many industries in which Borotherm may have applications as a fire resistant material. These include such varied manufacturing industries as cellulosic insulating board, building materials, paint, paper, lumber and milling, textiles and fabrics and others.

Copies may be obtained by writing the American Potash & Chemical Corporation, Eston Chemicals Division, 3030 West 6th Street, Los Angeles, California.

P. O. Peterson Elected Mack Trucks President

The election of P. O. Peterson as President and Chief Executive of Mack Trucks, Inc., was announced recently by the Board of Directors.

E. D. Bransome, until now President and Chairman of the Board, will continue as Chairman after Mr. Peterson assumes his active duties with the Mack company next month.

Mr. Peterson comes to Mack from his position as Executive Vice President of Studebaker-Packard Corporation of South Bend, Indiana.

Onan Plants for Civil Defense

The latest issue of "Power Points Digest," company publication of D. W. Onan & Sons Inc., Minneapolis, Minn., is devoted to the application of the company's products for Civil Defense. The two-color, 16-page booklet describes and pictures applications of electric plants used in C.D. work, including the Onan 14 KW units which furnish emergency power for the seven C.D. Zone Headquarters in the Miami Valley (Ohio).

Included also are details of the Columbia, S.C., Fire Department Emergency Truck, with 3,500-watt plant to power floodlights and portable electric tools for rescue work; the City of Los Angeles mobile communication centers, and those in the Mississippi Emergency Communications Center and Oklahoma C.D. Communications Center.

Wm. G. Loney Retires

William G. Loney, 64, manager of the fire hose department at the industrial rubber plant of Hewitt-Robbins, Inc., 240 Kensington Avenue, Buffalo, has retired after 37 years of service with the company.

He started working for the company in 1917 as an assistant sales manager. He became manager of the Buffalo sales office in 1921. In 1924 he was transferred to industrial division sales and in 1928 he was assigned to the municipal division, fire hose department.

A native of New York City, he lives at 337 Saint Lawrence Avenue, Buffalo.

New Bulletin on Fire Alarm Equipment

The SAFA Division of The Fyr-Fyter Company has just published a new 4-page bulletin outlining their complete line of fire alarm and central station equipment.

SAFA, formerly known as Superior American Fire Alarm, has just recently become a division of Fyr-Fyter. With the greater production and engineering facilties available, and the resources of Fyr-Fyter, SAFA now offers a complete line of equipment in these fields.

The new SAFA bulletin graphically presents fire alarm equipment including: alarm boxes, central station equipment, control panels, battery systems, transmitting and recording machines, public alarm systems, etc., and complete auxiliaries for all of their equipment.

Copies of SAFA Bulletin 101 are available upon request from: SAFA Alarm Division, The Fyr-Fyter Company, 243 W. Market St., Orrville, Ohio.

New Seagrave Aerial for Smaller Communities

The Seagrave Corporation, Lester Stevenson, President, Columbus, Ohio, has announced a "distinctly new aerial ladder truck" designed primarily to meet the need for an aerial ladder evidenced by many of the smaller cities and volunteer fire companies where the large, standard units are not needed.

The decision climaxes extensive experimental and test work to bring the price of such apparatus within the budget of these smaller communities.

The new ladder incorporates in its construction the standard commercial truck chassis, mounted on which is the Seagrave aerial ladder hoisting mechanism, the 65 ft. ladder and a complete complement of ground ladders, plus booster tank, when required.

The company emphasizes the point that the new unit will be a complete machine, "incorporating all evolutions of a performance found in standard aerial ladder trucks." It is a distinctly new all-hydraulic hoisting mechanism which raises, lowers, extends, retracts, and rotates the ladder; the ladder itself is a completely new all-steel welded type.

Annual Massachusetts Firefighting Conference Held at Worcester

January 6, the third day of the Union Agricultural Meeting at Worcester, Mass., was devoted to the State Fire fighting Conference, with over 400 representatives of the fire suppression and prevention profession in attendance. State Fire Marshall Robert Tappan presided during the day-long session, of which the theme was: "Let's stop the awful loss of life by fire in homes."

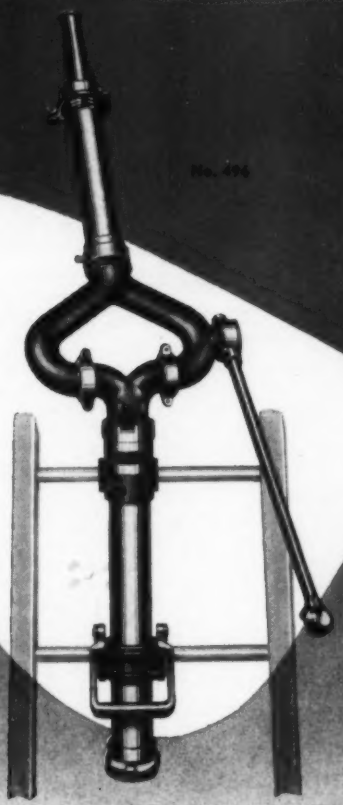
Speakers were: Deputy Chief Patrick E. Collins of the Boston Fire Department, a veteran who served many years in the most congested district of Boston. His topic was "Rescue and Prevention"; Myles Woodworth, Flammable Liquids Engineer, National Fire Protection Association, who spoke on fires caused by oil burning space heaters, now one of the major causes of fatal home fires; Deputy Chief Leo Gorman, of Providence, R. I., who told about their system of inspections of private dwellings; and Miss Betty Updegraff, R. N.; who discussed the nurse's part in fire safety.

After a luncheon recess, Col. John J. Maginnis, State Director of Civil Defense, disclosed plans for a complete new civil defense program for the State of Massachusetts; W. Thomas Owens of the University of Maryland described the Maryland training program; and State Director of Conservation, Raymond J. Kenney, gave an illustrated talk on the problems presented by the two hurricanes of last fall which blew down large areas of woodland.

HENRY T. HANSON

. . . for plenty of "Fire-Power"
in hard-to-get-at places . . .

Use these together!



No. 496

Two sizes:
No. 1245 — 500 G. P. M.
No. 1247 — 1,000 G. P. M.

NEW "FOG-HOG"® NOZZLE

A hog for fog, or straight stream. Tremendous gallonage and projection . . . easy to operate. Solid fog cone—all degrees of fog, straight stream or shut-off are instantly available. Akron design insures bind-free operation at all pressures. Rockerlug base for easy, positive attachment to any 2½" thread.

"MONARCH" LADDER PIPE

Operates safely, vertically and horizontally. Attaches to any ladder with quick clamps. New safety stop limits horizontal traverse to 15 degrees each side, no strain or damage to ladder. Two stream shapers incorporated at base and top of discharge pipe. Torque guide arm for easy control over stream direction. Light-weight Akrolite construction, brass moving parts. More water, less friction loss!

No. 455

NEW! "E-Z GRIP"® HANDLE

Tough but light-weight aluminum handle attaches quickly to "Fog-Hog" nozzle (shown above). At the end of a 2½" line (with any nozzle up to and including 500 G.P.M.) you have a firm grip and perfect control. Akrolite handle and brass base. At last . . . a direct connection base with handles a man can really hang onto!

AKRON BRASS MFG. CO., INC. WOOSTER, OHIO

AKRON BRASS

FIRE FIGHTING EQUIPMENT

FALSE ALARMS

Anticipation

Farmer Thomas' neighbor gave him a sow for his birthday and it wasn't long before he thought it would be nice to have a litter of little pigs to go with it. A farmer who lived three miles away offered him the use of his boar for $2.00. Farmer Thomas put his sow into a wheelbarrow and pushed it the necessary three miles under the hot sun. The next morning he came down expecting to find a lot of pigs gambolling about, but found the sow in solitary grandeur.

"No wonder," said the man at the Fair two weeks later when he heard about this experience. "What do you expect from a $2.00 boar? I've got a prize-winning boar at my place 15 miles from yours that I will let you use for $10.00." The next day Farmer Thomas put his sow in the wheelbarrow and pushed it 15 miles. "This time I am sure to have some little pigs," he told himself, but the next morning he was disappointed again.

A few weeks later he read in the paper that Joshua Spriggins, who lived 30 miles away, owned the national champion boar, great-grandson of Blueboy, and offered the use of same for $50.00. The persistent Farmer Thomas loaded his sow into the wheelbarrow again and trudged the 30 miles in dogged silence. The next morning he woke up in a dither of excitement. "I'll bet there'll be 20 little pigs around this time," he told his wife, and rushed down to the sty. He was wrong again. There wasn't a little pig in sight, but the sow was sitting in the wheelbarrow.

"Maybe that solves your Gordian knot problem, Alexander—but you'd better have the price of a new hand line!"

A woman's many virtues
Cannot ensnare a man
With half the ease and sureness
A few choice vices can.

The young husband and his wife were seated at breakfast before their large picture window which focussed directly into a similar window of their neighbor.

"No matter what the temperature or the season, that young girl next door takes a cold shower every morning and every night," observed the wife.

"Yes," replied the husband "and I've noticed she manages to stand up under it beautifully."

Mother (to small son): "I'm so glad, Herbie, dear, that you're sitting quietly and not disturbing daddy while he takes his nap."

Little Herbie: "Yes, mummy, I'm just watching what he does when his cigaret burns down to his fingers."

Guest (phoning down from his hotel room): "Is this the desk clerk?"

Clerk (in bad humor): "Well, what's eating you now?"

Guest: "That's what I'd like to know."

A customer had been drinking beer at his favorite taproom all afternoon. Becoming a bit hungry, he wandered down the street to a diner.

"Bring me an order of sardines," he said to the cute diner waitress.

"Do you wish them served in the can, sir?" the waitress asked.

"No, but you better hurry," replied the customer.

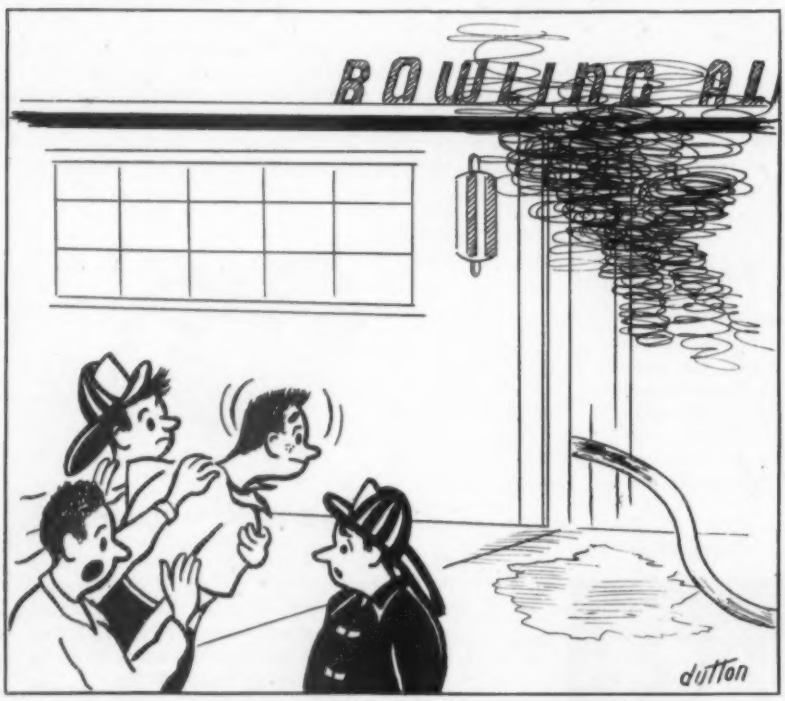
Asked to compose an essay on Quakers, one boy wrote: "Quakers are very meek, quiet people, who never fight or answer back. My father is a Quaker, but my mother is not."

Gold Digger: "So your millionaire's check bounced on you, did it?"

Chorus Girl: "Yeah, that louse. It came back marked insufficient fun."

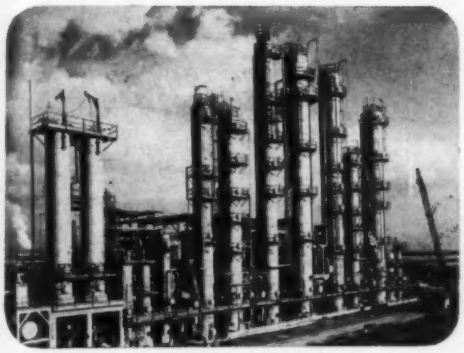
Mother: "Now before you get serious with him, be sure he is always kind."

Daughter: "Oh, I'm sure he is; he told me that he put his shirt on a horse that was scratched."

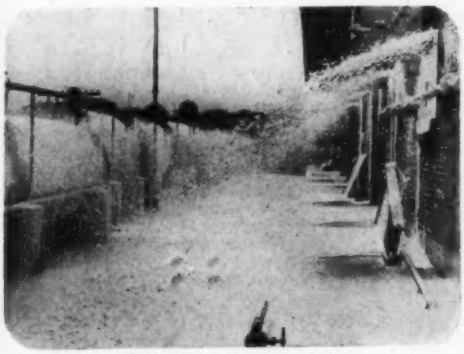


"Justed bowled his best game. He wants to go back for the score sheets!"

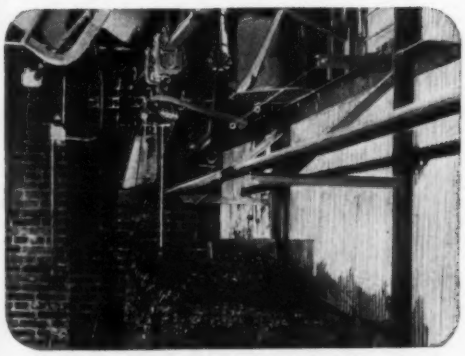
Complete FIRE-ENGINEERED *Protection*



Refineries, Chemical Plants



Bulk Plants, Storage Tanks



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Wherever flammable liquids — oil or solvent — are used or stored, you need AER-O-FOAM Protection. National Foam will fire-engineer a completely integrated AER-O-FOAM System specifically related to your operations and hazards.

National offers you "triple-guard" fire protection: (1) Custom-designed system. (2) Quality-controlled foam made by National for National devices. (3) Fire-tested foam, every batch pre-tested on a flammable liquid fire.

Don't gamble with fire. Don't buy fire equipment piecemeal. Let National fire-engineer your foam system for instant, *positive* protection.

Write for new, free booklet, "Foam Fire Protection".

NATIONAL

FOAM SYSTEM INCORPORATED

Headquarters for Foam Fire Protection — WEST CHESTER, PA.

Among the Buffs

By Paul C. Ditzel

NEARLY every buff organization has given consideration to the publication of a regular newsletter. Some clubs have given this thankless job to an energetic member who often loses interest himself when the membership fails to support him with news items.

Of all the buff newspapers and magazines that are regularly sent to me, none is finer or imore professionally done than "General Alarm," edited by Ray Wheatley of the Box 414 Association, Baltimore, Md. Ray's address is 423 N. Gay Street, Baltimore 23, Md.

The excellence of Wheatley's work is shown in the very simplicity of his publication which stands out over some of the labored works of harassed buff editors. Probably Ray's secret of success lies in the chatty approach he takes.

In his first issue, Ray stated the purpose of the newsletter and I include it here for the guidance of clubs contemplating such a venture and for the interest of other buff editors who I'm sure often feel like orphans when they sit down to put out their publications.

"We are going to endeavor to make this monthly news letter an interesting affair in the lives of our members. It will attempt to bring messages from our president and board of directors to our members who cannot get to meetings or keep close touch with the club. This letter will be open to all members who have any needs which they think other members might give help."

That gang at Box 414 must be a good group. Here's Ray's story of an incident that happened to Member Harry Geldmacher:

"On Saturday . . . Mr. Harry Geldmacher was proceeding to the club to do his regular watch. As he was standing at Baltimore and Stricker Streets waiting for a bus, an auto came up on the pavement and crushed him against the wall of a building. He was rushed to the hospital; but before they could attend to him, although seriously injured, he insisted that his son call Charlie Price to inform him that Mr. Geldmacher could not do his watch that night."

I learned of some of the activities of this ambitious club through Ray's paper: new classes to instruct members in the proper operation of the coffee wagon; a family Christmas Party; a Christmas Garden, publication of box number books by Member Bernard Tennyson; 28 cards sent by Member Thomas Neser to sick and injured firemen on behalf of the club and start of a relic collection.

Officers of this live wire club are: Charles G. Price, president; Henry Nathen, 1st vice president; Yale Epstein, 2nd vice president; Charles Ashley, secretary; Julian Katzenberg, treasurer and board members Herdman Schwatka and Leslie Esslinger.

Brother Wheatley recounted, too, the story of President Price who was leaving 28 Engine with the coffee wagon for the gala Baltimore Oriole Baseball Team Appreciation Night when a second alarm was pulled at Box 16. Although President Price had two free tickets to the ball game he, of course, responded to the fire. There must be an easier way to enjoy a hobby.

The club was named after a downtown fire alarm box which ironically was eliminated and changed to Box 576 in a recent changeover. The club was founded in Baltimore in 1873.

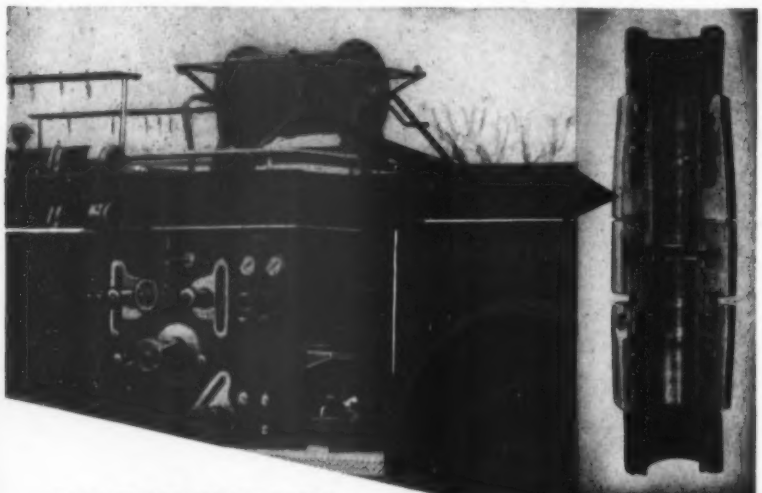
A great deal of the success of the club's relatively new venture must go to the members themselves, said Wheatley. The membership has greatly aided him via telephone calls and suggestions. Obvjously, that is the secret of success for any buff paper.

And if you think that the club spends all its time in first aid classes, testing its Disaster Unit and allied affairs, listen to this account of one of Baltimore's recent fires:

"A slow sprinkling of rain was falling when a call split the quiet of the early evening. ALERT: Box 563, #26 Engine House Box, West and Leadenhall Sts. We were all on our toes immediately knowing the house box was pulled by the members of #26 Engine, we naturally expected big doings. Boy! Did we get it. The granddaddy of the year! This was at 9:04 p.m. After two minutes of silence, all heck broke loose.

"Battalion Chief #6 called for a third alarm on Box 563 at 9:06 p.m. and alerted headquarters to stand by for more. At 9:08 he called for the fourth; the fifth at 9:10 and the sixth at 9:12. At 9:31 he went directly to a 2-2 624 and at 9:33 to a 3-3 5623, making a total of 11 alarms.

"Engine 26 went directly to the Amer-



BAR-WAY COUPLINGS...

For booster and high pressure fog lines

There are four good reasons why the fire fighters specify BAR-WAY couplings. Four reasons why BAR-WAY couplings are growing in favour with firemen, hydraulic engineers and others who insist on the best.

•SAFETY—The coupling becomes the *strongest part of the hose line.* Tested to 3000 pounds pressure and 500 pounds pull.

•FULL FLOW—No suppression of flow in coupling. No shrinkage of hose at coupling.

•FLEXIBILITY—Reels smoother. Easily replaced. Nothing to catch on corners or underbrush.

•BETTER MADE—Accurately machined, always the same, interchangeable. WILL NOT FAIL.

Send for our free pamphlet. Gives detailed specifications for all types of pressure hose, ID and OD.

BAR-WAY MFG. CO., STAMFORD, CONN.

ican Transfer Co. warehouse where they knew six freight carloads of wooden matches and a large quantity of rubber tires were stored. These were already off and rolling. The entire perimeter of the involved block was made up of warehouses and dwellings and in the middle of all this was a lumber yard. The fire apparently started in the lumber yard and spread out in all directions. . . .

"The initial box 563 was not recalled until 6:22 a.m. on the 17th . . . a total of 9 hours and 18 minutes. Our coffee wagon was in continuous service for 18½ hours at the fire. We served 108 gallons of coffee, 450 hot chocolates, four gallons of soup, 101 dozen buns and 324 sandwiches."

While all this was going on, another engine house box was pulled for a third alarm fire. It is believed that this was the first time in the Baltimore Fire Department's history that two additionals were in at the same time from engine company house boxes. Five gallons of coffee were served at this fire! Anybody want to move to Baltimore?

That's it for this month. Until the bells go down again, I'll sign off from this Pacific Ocean sand dune: 419 Napoleon Street, Playa del Rey, Calif.

Chicago Starts New Year with Fire Alarm Blaze

Heavy streams and outside fire fighting operations by a small army of fire fighters with 45 pieces of equipment, finally quelled a 5-11 Alarm blaze that did damage amounting to $200,000 to building and contents of the Kearns & Smith Spice Co., 711 So. Wells Street, Chicago, Ill. on New Year's Day, 1955. The fire is illustrated on the front cover of this issue.

The spectacular blaze virtually wiped out the interior of the 6-story brick joist building. Cause of the fire is unknown but is being investigated. One fireman was slightly injured.

A postal employe reported the fire about 8:15 a.m. when he noticed a glow inside the building across the street. Five alarms were turned in in rapid succession.

No one was inside the building when the fire was discovered. The owner told about another fire that had occurred the preceding day and supposedly had been put out by employes. There apparently was no relation between the two blazes but the coincidence is being probed.

Fire Destroys Latex Plant

A fast-moving fire raged through a building of the Golden State Latex and Rubber Co. in Lennox, Calif., on Dec. 21, completely destroying the structure in less than half an hour.

Four Los Angeles County fire companies under command of Asst. Chief Harvey W. Crutchfield finally controlled the blaze despite intense heat and wind-fanned flames.

Source of the fire was not immediately determined.

Damage was expected to reach $100,000.

One county fireman, Cyril Jenkins, was hurt by a falling timber and treated at Tri-City Emergency Hospital.

—Cliff Dektar

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FIRE HOSE

SAVES SPACE and is 20% LIGHTER than Conventional Hose

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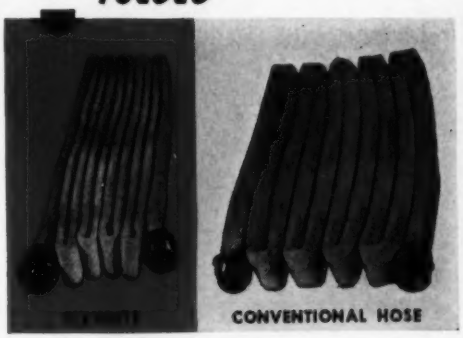
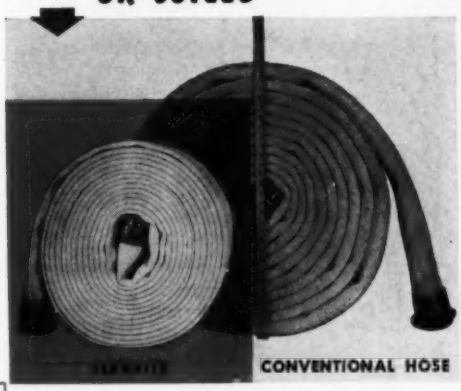


OR COILED



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- EASIER TO PACK AND HANDLE!
- TESTS TO 400 LBS. P.S.I. TEST PRESSURE!

* Also available in Energy Brand 600 lb. psi Test Pressure.

Space-saving, lighter "Flexrite" Fire Hose is made possible by the use of Dacron* chemically-produced polyester fiber filler cords.

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Complete line of Fire, Booster, Suction and Forestry Hose for every Municipal and Industrial Requirement.

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More Freedom of Movement

in ISSCO's new aluminized asbestos turnout coat

Here's a turnout coat that's light, pliable, heat-reflecting, and water repellent as well. This new ISSCO coat is far less cumbersome on a ladder; far more effective up close to a fire where its highly polished aluminized surface (not mere foil) reflects most of the heat. Coat has wristlets sewn into sleeves, is wool lined to the waist (for winter comfort), and fastens with big easy-to-manage snap hooks.

CLIP COUPON BELOW FOR FREE BROCHURE

when heat is intense

Use ISSCO's heat-reflecting aluminized asbestos hood and gloves. Gives you that extra protection around face and hands in approaching fire and in flash-backs. Hood has built-in helmet—adjustable to size: ¼" laminated safety glass window. Gloves shown are ISSCO 114-AL (One of many styles we furnish).

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Please send me your new folder describing aluminized asbestos protective clothing

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The WATCH DESK

Overhauling the firemanic news of the day

by ROI B. WOOLLEY

A 'Plug' for the "Boys Who Will Be Boys"

One thing about fire hydrants, they usually stay put where they're anchored. That's why Robert C. Carlson, New Brunswick, N. J., high school principal was more than a bit astonished when he opened the door to his office recently to discover, of all things, standing on the floor right next to his desk, a nice, painted fire hydrant, that weighed well over 200 lbs., stripped.

How it got there remained a mystery until it was explained by Juvenile Aid Bureau later. It seems that a high school student driving his father's car at night was blinded by the lights of another car in Water Street, New Brunswick, and lost control of his own vehicle. He swerved it into the fire hydrant, shearing the "plug" off at the base.

Police reported the accident; water department employes came to shut off the flow of water, and departed leaving the amputated hydrant on the sidewalk for removal next morning.

The student, later that evening, met some pals at a neighborhood sweet shop and told them about the accident. That did it. One of his companions conceived the bright idea that it would be a nifty prank to transport the said hydrant to the school. So they went down, four of 'em, loaded the 'plug' into their car that night and next morning, early went to the school. One of them gained entrance to the building, got into Mr. Carlson's office and pushed down the panic bar, opening the door for his friends, who carried in the hydrant and set it up beside the principal's desk.

All four students were apprehended, suspended and are "sweating it out" awaiting their final punishment at the hands of school authorities.

THANKS CHIEF ARTHUR C. JAQUES

* * *

Where in Blazes . . . !

As they say in TV, "this is a true story; only the names have been changed to protect the innocent."

It's about Fireman Joe Blow of a Certain Big City Fire Department who wasn't lost, one afternoon although it appeared that way for 41 anxious minutes. Actually, the other members of Engine 99 were lost, since firemen get paid for fighting fires and Joe found a fire to fight and his fellow smokeaters didn't.

It all began in routine fashion, at 1:50 P.M. when Company 99 got a call about a fire in the vicinity of Shady Lane and Hickups Ave.

Finding no fire there Lt. Lowpockets ordered his seven men (honest, there *is* an engine company with a full crew in this city ! !) to spread out and locate it.

Some time later, six of them were back. "Musta been a false 'local', Lieutenant," one of the Brothers told Lowpockets, "we might's well go home."

Then it was discovered that Joe Blow was missing. Everybody started shouting, to no avail. The lieutenant, fearing that Joe had fallen down a ravine and was lying unconscious at that very minute, radioed (ah, blessed radio) for reinforcements. And Rescue 100 sped to the scene from its quarters. Everybody fanned out again.

And then, 41 minutes later, someone found Joe Blow putting the final touches on what had been a roaring fire, "down by the creek."

No need for alarm, Joe told his buddies. A couple of kids had led him to the fire, and he saw he could knock it down with his portable pack extinguisher. If he'd gone back to the pumper, he opined, the fire would have gained too much headway.

* * *

Pastor—and Fire Chief—Is Called

From New Gretna, N. J., comes the story about the Rev. Joseph Uncle, who is, or was up to January 1, 1955, the village fire chief.

Seems that the good pastor-chief filled the job as head of the local volunteer department only as a mere formality, that is, until his last day in office.

A pre-dawn pounding on his parsonage door awoke the fire fighting reverend with a call to the community's one and only major fire of 1954.

He didn't have very far to go.

Ten feet away, his own church, St. Paul's Methodist, was burning.

Damage totaled $11,000 before the vamp fire chief, and his men could extinguish the blaze.

—THANKS IRVING JOHNSON

* * *

Tale of the Turpentine Mule Tail

A forest fire, started as November closed by a runaway mule, destroyed 20,000 acres of valuable pine trees, down Folkston, Ga.-way, before it was finally extinguished on Dec. 6th

There have been bigger, more costly fires, but none from the same fantastic cause. For this blaze was started by, of all things, a mule.

According to H. E. Ruark, chief of forest fire control of the George Forestry Commission, a mule being used in turpentine work in the swamp on November 27th, switched its tail into a bucket of coals used as a warming fire in a wagon. The burned and frightened animal dashed into the underbrush, setting it ablaze.

Fire fighting units from as far away as Macon were rushed to the involved area after the fire broke out of the Okefenokee Swamp.

The fire destroyed about 6,000 acres of timber in the giant swamp before sweeping into the Charlton county pine forest, the flames searing an area 18 miles long and 3 miles wide, according to Ruark.

Contrib' Irving Johnson, who spotted this newsbit, says "A cow in Chicago—a mule in Georgia." By the way, wha hoppen to the mule!

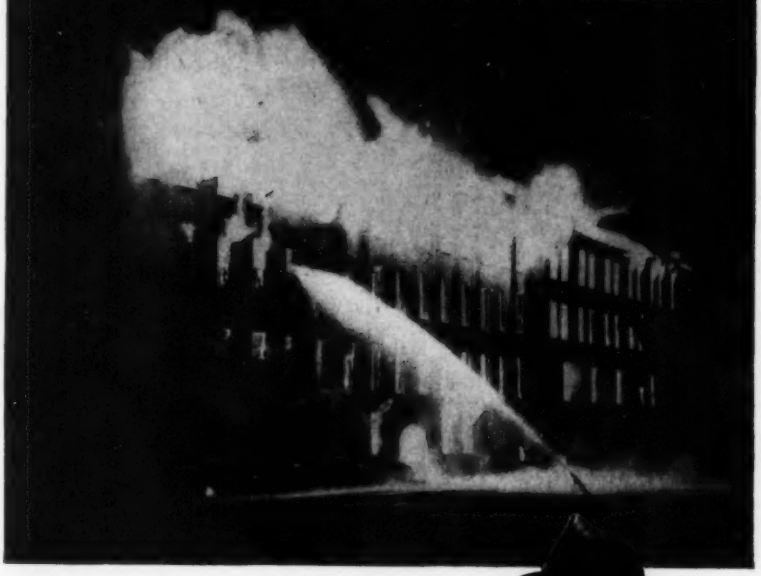
* * *

Hot Off the Tape

Electric blankets were ordered out of all 27 San Diego fire stations, December 22, according to press reports which related that Fire Chief George Courser

said firemen are supposed to be "robust, athletic and ready to jump out of bed" without delay of turning off blankets or possibly tripping over wires. Kinkchaser asks: how come they gotta have electric blankets in San Diego!" . . . While we're discussing that city, word comes that a woman was sent to state prison on January 6 last, for from one to two years for holding the hands of two adopted children over a gas burner until neighbors heard them scream with pain. . . . In Poughkeepsie, N. Y., patrons of the Bardavon theatre cheered on the night of January 3rd, when smoke arose around the screen while Marilyn Monroe performed her "Heat Wave" number in the movie "No Business Like Show Business." Then along came firemen under chief Irving Merrick to douse a small fire in the heating system. . . . A new 30-inch natural gas pipe-line burst about seven miles west of Osawatomie, Kan., December 14th, last, with a blast of flame that was seen in Kansas City, nearly 50 miles away. Nobody injured. . . . In North Sacramento, Calif., a city hall fire drill was so realistic last December that an employe dashed back into her office to save her pet canary. . . . Volunteer Fireman Joseph Nielson, Jr., fell from a moving pumper December 26th 1954, as it was gathering speed after leaving the Glenolden, Pa. Fire House on Chester Pike. He was hospitalized with fractured collarbone and other injuries. . . . Voted a candidate as the meanest man in town, police of Los Angeles are searching for a guy who not only robbed a blind man, but set his home on fire as well. Dum de dum dum—page Sgt. Friday. . . . Fire at the Universal-International Studio, Hollywood, in December didn't follow the script. This called for actress Anne Baxter to throw a book at the leading man, Rock Hudson, knocking over a kerosene lamp. Well, she threw the book and the lamp was knocked over, and the flames swept up the acetate drapes. But bingo! Stand-by crews were unable to contain the flames as they whipped to the top of the 80-foot-high sound stage. The heat opened sprinklers over an adjacent stage and caused damage to other sets prepared for the movie. . . . Mrs. Henrietta Feinman, 52, of Brooklyn, N. Y., ill, despondent, determined to kill herself. So she went to the roof, ignited her garments, waited until flames had a good start, then leaped from the 3-story building. She died. . . . There's a rookie patrolman in Rockland, Mass., the quiet little suburb of Brockton, whose face is the color of his town's fire engines. His first assignment, December 23rd, was to direct traffic at a busy square with orders to ring headquarters on his police box promptly at 5:00 p.m. On the same utility pole with the P.D. box is a fire alarm box. That's right, you guessed it. Thus adding the town's fire apparatus to the rush-hour confusion. (Thanks to the several who mailed in this item). . . . Residents of Rutland, Vt., who have been following the prophecies of doomsday emanating from a Chicago religious group, feared the worst when two heavy detonations thundered through the hills. A wave of telephone calls engulfed fire and police headquarters and the local newspaper asking was it the end of the world? Everybody was relieved to learn it was only a highway construction crew setting off dynamite.

YESTERDAY...
A Total Loss!



1943 . . . A midwestern industrial landmark, which at the turn of the century was the nation's largest tanning center was destroyed by fire with a $300,000 loss. Huge stocks of lumber, paints, oils and furniture were stored in the building. (Int. News Photo)

TODAY...
FIRES ARE FOUGHT BY ATTACK...NOT DEFENSE!

The Man with the Scott AIR-PAK IS IN FAST FOR *FIRE ATTACK!*

YOURS IS A **FIRE ATTACK** DEPARTMENT IF YOU HAVE SCOTT AIR-PAKS ON EVERY FIRE TRUCK

A major requirement for *FIRE ATTACK* is complete breathing protection. That's why Scott Air-Paks are *FIRE ATTACK* equipment. To get in fast, through thick smoke or hazardous fumes calls for experienced firefighters and Scott Air-Paks.

Your men breathing cool, fresh air will save more lives and reduce fire losses to a minimum. Take steps now to make yours a *FIRE ATTACK* Department. Write us for complete information.

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SAFETY EQUIPMENT DIVISION

SCOTT AVIATION CORP.

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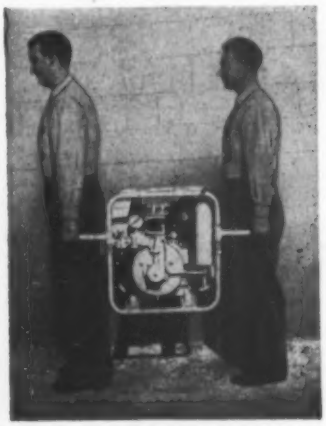
Canada: Safety Supply Co., Toronto — Branches in principal cities
Export: Southern Oxygen Co., 15 West 57th Street, New York 19, N. Y.

HALE Type FZZ

- Quick-Starting
- Portable
- Compact
- Powerful
- Versatile



Above—Frame-mounted FZZ can be easily carried by two men. It is also available mounted on rubber cushioned steel channels, or on two truck-type wheels.

Fire Companies frequently write us telling of the many practical ways they use their portable Hale type FZZ, such as the following:

- **For fighting field or forest fires from moving trucks.**
- **For "wetting down" and standby use, thus releasing major equipment.**
- **For pumping out flooded cellars and elevator shafts after fire, flood or other emergency.**
- **For relaying water to pump or booster tank from sources inaccessible to major Fire Pumpers.**
- **For factory protection in fighting fires before major equipment arrives.**
- **For fighting oil or other type fires requiring foam. (Built-in foam proportioner available when specified.)**

The FZZ will supply from draft, 2 capable fire streams thru 1½" lines. Its performance substantially exceeds the NBFU and NFPA capacity and pressure requirements for portable pumping units.

Note: Discharge Adapter can be supplied for use with 2½" fire hose.

Write for FZZ folder today. Ask for Demonstration.

HALE FIRE PUMP COMPANY
CONSHOHOCKEN - - - - PENNA.
Fire Pumps in All Standard Capacities

The ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

MOST FIRE DEPARTMENTS DO SALVAGE WORK

THE discusson in this Round Table is a continuation of that which appeared in the December and January issues on salvage operations of fire departments.

The generous response from our readers made it necssary to carry the discussion over to this issue.

Readers are invited to send in their comments on this subject, or on next month's subject which is described in a box on a subsequent page. Address replies to Round Table Editor, FIRE ENGINEERING, 24 West 40th Street, New York 18, N. Y.

Discussion of the Topic

T. G. Lennon, Chief, Saskatoon, Sask.: All units in our department carry at least four to six covers.

Heirlooms, furniture, floors, etc., are protected from unnecessary damage, especially those prized articles which for sentimental reasons cannot be replaced. We feel this work creates good public relations.

Many of the public in general hesitated in the past to call the fire department, owing to the amount of damage that has been done by some departments. However, good salvage operations are overcoming this fear.

We carry mops, brooms, pails, sawdust, etc., for cleaning up after every fire.

We try to leave all premises as clean and as livable as possible.

L. F. McDonald, Chief, Jackson, Miss.: We carry fourteen covers on each ladder truck and two on each pumper.

Good salvage operations help to keep fire insurance rates low. We just couldn't get along without doing this work.

We clean out rooms damaged by fire, wipe off wet articles, sweep out water and debris. Such practices are liked by all our customers.

T. E. Yarnton, Chief, Regina, Sask.: We carry an average of five covers on all trucks.

The salvage operations definitely benefit the property owner by cutting down water and other damage to stock, etc.

Any salvage operation necessary to reduce further damage is done, such as cutting off electrical current, drainage of water from floors, preservation of records, etc.

J. H. Freeman, Chief, Tucson, Ariz.: All units carry salvage covers. Two are carried on each pumper and five on the aerial ladder truck.

Salvage operations benefit both the property owner and the fire department, and this practice makes for very good public relations, too.

We clean up after every fire, sweeping, mopping and removing all debris and water.

George Alford, Chief, Pine Buff, Ark.: All men are trained to do salvage work. Three covers are carried in pumpers and chiefs' cars and four on ladder trucks.

We saved over $12,000 of insured stock at one fire by performing salvage operations. This makes for good public relations.

We clean up after every fire as much as possible, getting all water and debris out.

V. A. Parker, Chief, Cumberland, Md.: We do perform salvage operations, but are limited due to shortage of manpower.

An average of three covers are carried on each piece of apparatus.

Benefits resulting from this practice include the following:

1. Saves personal and valuable property from water damage.

2. Makes for easier, neater and faster working conditions.

3. Public relations between the property owner and the fire department are improved.

In addition to spreading covers, we divert the water, draining upper floors as a safety measure; evacuate valuable commodities and, in general, clean up after the fire.

Paul Neumann, Chief, Appleton, Wis.: We do salvage work in our department. Covers are carried on pumpers and ladder trucks. Engine Co. No. 1 carries one 12 x 18 and one 8 x 12 cover;

HERE ARE THE QUESTIONS

1. **Does your department perform salvage work at fires as a regular activity?**
2. **Which apparatus carries the covers; (a) pumpers; (b) ladder trucks; (c) other units?**
3. **How many covers are carried on each unit?**
4. **What benefits do you believe result from salvage operations to: (1) property owners; (2) fire department; (3) public in general?**
5. **What other salvage operations are performed in addition to spreading covers?**

Engine Co. 2 carries one 12 x 12 and one 8 x 12; Engine Co. 3 carries two 12 x 18 and one 8 x 12; Engine Co. 4 carries two 12 x 18 and two 8 x 12 covers. Ladder Truck 1 carries four 12 x 18 and nine 8 x 12 and Ladder Truck 2, four 12 x 18 and three 8 x 12 covers.

As a result of our salvage operations, less water damage results to property owner.

The truck companies sweep up debris and mop up water on small fires after fire is out in business and residential properties; also use smoke ejectors, of which we have two.

Thomas F. Richardson, Chief, Stamford, Conn.: We do salvage work, but only to a limited extent. Covers are carried on units other than the ladder trucks and pumpers.

Between six and nine covers are carried.

Property owners receive the benefit of lower loss to property. Insurance companies also share this benefit.

The only benefit received from salvage operations insofar as the fire department is concerned is that it helps to keep their over-all fire losses down, and possibly minimizes public criticism.

The public has the feeling that the fire department is doing all it can to keep the fire losses down.

Harry Marr, Chief, Portland, Maine: Two salvage covers are carried on each pumper, six on each ladder truck and ten on other units. A total of 62 covers are carried.

We feel this work benefits property owners and public in general, as it protects them against undue damage. The fire department also benefits due to the fact that their fire losses are cut down.

In addition to spreading covers, we sweep and mop up after fires, drain water from floors, remove debris from buildings, cover broken windows, cover openings in roof, etc.

J. R. Carter, Chief, Fort Lauderdale, Fla.: All units in our department carry at least two covers. We do any salvage work that will fit the occasion. We feel there is a great saving to the property owner because of this work.

Clarence H. Green, Chief, Concord, N. H.: Fifteen covers are carried on ladder trucks and one on pumpers.

We feel this work reduces fire losses and improves public relations.

In addition to spreading covers, we pump out cellars, cover roofs when shingles have been blown off in wind storms, cover windows and, in general perform any type of salvage work within the function of the department.

Zenis Nicoson, Chief, Terre Haute, Ind.: We carry three or four covers on each ladder truck.

We feel that salvage work makes for good public relations.

In addition to spreading covers, we make a general cleanup of property after a fire.

J. F. Romeo, Chief, Albany, Ga.: Four covers are carried on pumpers and sixteen on ladder trucks.

We feel that this salvage work results in great savings to property owners.

In addition to spreading covers, we clean up the property and move out debris.

B. L. Warlick, Chief, Jackson, Tenn.: We carry from three to five covers

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on each pumper and ladder truck. We feel this work makes for good will and reduces losses. We have received the deep appreciation of property owners for the work we have done.

We clean floors, rugs, etc., in addition to spreading covers.

W. J. Hannon, Fire Marshal, Aurora, Ill.: Salvage covers are carried on ladder trucks and rescue trucks.

Such salvage work prevents loss by water, creates good will and aids in keeping down insurance losses.

In addition to spreading covers, we close up building against weather, mop up excess water, clean up entire premises against elements, aid in preventing further loss to stock by wiping and piling undamaged contents.

Bernard J. Padgett, Chief, Alexandria, Va.: We perform salvage operations in this department. Three covers are carried on hose wagons, one on engines, eight on trucks and sixteen on squad wagon.

Property owners, the fire department and the public in general all benefit in one way or another as a result of this work. Losses are reduced and good public relations are built up.

In addition to spreading covers, we overhaul, do general cleaning up of property, remove water and close openings against weather and thieves.

W. M. Mullins, Chief, Roanoke, Va.: Engine companies carry two or three covers and truck companies ten.

Salvage work is very successful in homes and results in great savings to merchandise and property. It also makes it easier for the fire department to clean up after a fire.

The Roanoke Fire Department carries brooms, chamois, squeegees, mops, shovels and sponges. We clean up after each fire and try to leave the property as clean as possible. We also carry a roll of roofing paper to cover a hole in the roof that might be cut during a fire. If we do not have enough roofing paper, we radio back for more. Each truck company also carries an assortment of nails.

John A. Laughlin, Chief, East Providence, R. I.: Six salvage covers are carried on each ladder truck.

The benefits from salvage work include the following:

1. Reduces damage.
2. Increases the efficiency of department operations.
3. Creates good public relations, inasmuch as the public can see that improved operations of a modern fire department result in substantially reduced losses from water, smoke and other elements.

We remove water from buildings, clean and mop up, etc.

Edward G. Duball, Chief, Burlington, Vt.: We perform salvage work at fires although we have no regular salvage crew. We have about twenty salvage covers in this department. Four are carried on each engine and the remainder on ladder trucks.

The public in general benefits from this work due to the fact that losses are reduced.

E. R. Surfus, Chief, Eugene, Ore.: We carry three covers on each pumper and six on each ladder truck.

We have been able to prevent considerable damage to the property owners, especially from excess water and falling debris. We feel this work is

one of the fire department's best public relations assets.

Efficient and timely salvage operations at a fire demonstrates to the public the value of a well-trained fire department. It is surprising how many of the general public show up at every fire of any size and how generous they are in their praise of a job well done.

In addition to spreading covers, we do a thorough job of cleaning house when we extinguish a fire. Our aim is to make property involved in a fire as nearly livable as possible when we leave. And while this is, in many instances, a dirty, tedious job, the gratitude expressed by the people involved makes it really worth while.

F. E. Saefke, Chief, Fargo, N. D.: All apparatus carry salvage covers. Four are carried on pumpers and eight on aerial trucks.

Salvage operations benefit the fire department as well as everyone concerned.

We clean up after each fire, ventilate, and use a deodorant to remove any foul odor if conditions make it possible to do so.

John W. Gallagher, Chief, Huntington, W. Va.: All units including emergency unit carry from two to twelve salvage covers.

Benefits resulting from salvage work include:

1. Great saving in water damage and less inconvenience to property owner.

2. Better relationship for fire department with the city administration and insurance companies.

3. Improved public relations.

In addition to spreading covers, we remove debris from building, cover openings in roofs, block door and window openings, use mops and squeegees on floors and see that all gas, water and electrical outlets are safe.

George F. Skene, Chief, Calgary, Alta.: The Calgary Fire Department does perform salvage work. Four covers are carried on each pumper and ten on emergency trucks.

Property owners, the fire department and the public in general benefit from these operations by having less water and smoke damage.

Smoke is removed by the use of fans; floors and furniture are cleaned up. If the roof is damaged, covers are used to protect contents against weather. If windows are broken, they, too, are covered.

W. Cobb, Chief, Westmount, Que.: The population of the City of Westmount is 27,920, the area is 976.58 acres and valuation is $69,931,954.

Our department performs salvage work at fires as a regular activity.

The city service ladder truck at No. 2 Station carries twelve covers and the salvage truck at No. 1 station carries forty-five.

We believe these operations cut down expenses on property owners and tenants. Some of these people have no insurance and good salvage work, both in covering household furniture and cleaning up afterwards, can stop extra repairs to floor, and more important, tenants probably can live in the house immediately after the fire.

Such work creates more work for fire personnel and helps in general to foster good feelings from citizens towards the fire department. Many

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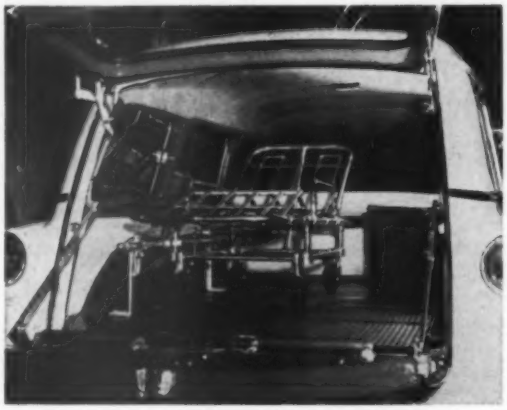

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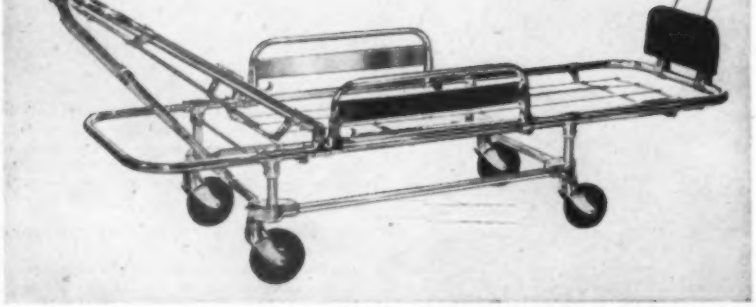

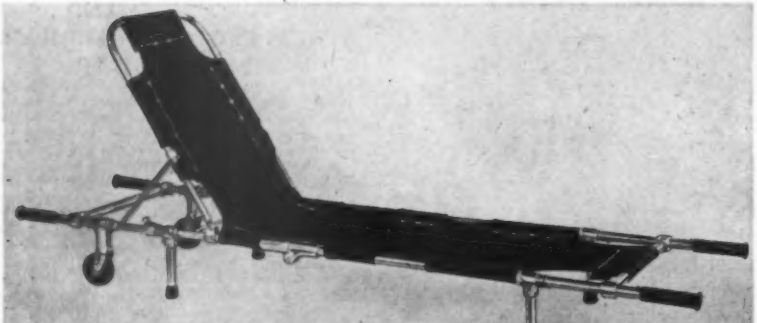

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HERE IS THE QUESTION FOR THE NEXT ISSUE

1. Do members of your fire department to be assigned as drivers of apparatus receive special training to qualify them?
2. Of what does this special training consist?
3. What is the average time required to train a driver?
4. After they have completed the required period of training, are they subjected to further tests to determine their fitness? If so, of what do the tests consist?
5. If no special training is given drivers, how are drivers selected?

comments have been received on the work we have done.

Our salvage truck carries in addition to salvage covers, rubber gloves for doing electrical work, wire cutters, mops, brooms, buckets, squeegees, etc. It also carries two resuscitators, one inhalator, first aid boxes, blankets, hot water bottles, ice packs, etc., for street accidents, when department may be called out. All personnel are qualified first aid St. John's Ambulance men.

This salvage truck is also sent out for roof flooding, radiator and water breaks in homes. Emergency repairs are done and then referred to private plumbing concerns. We also aid people who are locked out of their homes to enter. Many good comments have been received for these extra services. There are no charges. Our men must not take any tips and all money, if received, must be turned over to the pension fund and receipt forwarded by department head.

Ben Dozier, Chief, Florence, S. C.: This department does salvage work at all fires, such as covering furniture, cleaning up plaster, sweeping out water and performing other salvage operations that are needed.

Pumpers carry three covers and ladder truck twelve.

There is no doubt that salvage operations save property owners thousands of dollars each year. In my opinion, salvage operations are a "must" in the fire service.

The fire department can make more friends and build up their public relations through salvage work and, at the same time, give the taxpayers a service they deserve. We have experienced this, and it certainly pays dividends.

We feel that the public in general should know that the fire department performs salvage operations, as this is a service from which the property owner and the tenant receives untold benefits.

Other than using covers and doing general salvage work at all fires, this department makes temporary roof patches when the roof is damaged.

August Schalk, Chief, Champaign, Ill.: All units carry two salvage covers.

We believe performing salvage work

(*Continued on page* 160)

Book Shelf

Fire Service Training: by the Trade and Industrial Education Service, Division of Vocational Education, State Department of Education, Columbus, Ohio, in Cooperation with the Ohio Inspection Bureau and Division of State Fire Marshal. Edited and Distributed by the Trade and Industrial Education Instructional Materials Laboratory, The Ohio State University College of Education, Columbus 10, Ohio. Size 8¾ x 11¼ in.; 246 PP, hard cover.

This manual deals with the wide range of operating practices of fire prevention and fire fighting. It was originally issued as an aid to fire department training sponsored by the Trade and Industrial Education Service, Division of Vocational Education. In addition to a Table of Contents, Preface, Foreword, and Introduction, the book contains 22 Sections or chapters dealing with the fundamentals of fire defense and fire-control operations. The manual is well edited and printed and contains numerous illustrations taken from a wide range of sources.

The Fireman's Law Book—by Charles W. Bahme, Battalion Chief, Los Angeles Fire Department; Attorney at Law; Member California Bar; Commander U. S. N. R. Ltd. issue. Pub. and Distributed by International Association of Fire Chiefs, Hotel Martinique, Broadway at 32nd St., New York 1, N. Y.; 8¼x10¾ ins.; 148 Pp.; Price $3.00.

A practical legal guide for fire fighters, drivers of fire apparatus, fire inspectors, fire alarm supervisors, arson investigators and commanding officers of every rank and branch of the fire department.

The author has built upon his previous study "Firemen and the Law" to provide the fire service with practical information on legal principles applicable to firemen and fire departments.

The book contains 14 chapters, with a foreword by Chief John Alderson, Los Angeles Fire Department and a glossary of terms and abbreviations.

This comprehensive compilation of up-to-date legal text should be in the library of every progressive fire department and fire fighter concerned with advancing the business of fire suppression.

The Four Wheel Drive Story by Howard William Troyer. Published by McGraw-Hill Book Company, Inc., New York, 1954, 215 pages, board cover.

This is the story of the birth and development of an idea in automotive propulsion; of a man and his family that fostered and furthered it; of a business that grew out of it, and a community that helped nourish it. It is a simple story and one that could be written about many American enterprises. To fire fighters, the fact that it is written around a corporation that has built a great business upon the principles and people who produce some of the nation's 251 finest fire apparatus described in fascinating detail in the book, should be sufficient to recommend its addition to their fire service library.

The book begins with the period Circa 1905 in the little town of Clintonville, Wis. (pop. 480); it introduces the blacksmith and machine shop of Otto Zachow; the young attorney Walter Olen: the decision of Zachow and his

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brother-in-law, William Besserdich, to take the agency for the Reo, a motor car, and how, as a result of driving in this early two-wheel chain-drive vehicle, Walter Olen, Zachow and Besserdich agreed upon the need of a four-wheel propelled vehicle, patents for which Olen secured in 1908.

The first "four-wheeler," a steam-driven "craft," lived long enough to prove the principle right, then gave way to a gasoline-driven car. Came the Badger Four Wheel Drive Auto Company (Capital $35,000) and came also discouragements; but out of trial and tribulation developed the faith of Zachow, Besserdich and Olen, and the organization of the Four Wheel Drive Auto Co. In August, 1912, Walter Olen, Peter Batenburg and William Besserdich drove their first car to the State Fair at Milwaukee for the auto show.

How, from this beginning, Four Wheel Drive found its niche in the motor truck field rather than the passenger vehicular field; how it passed the army tests; how it contributed to winning World War I; how it found its way into new fields, including the fire service, makes fascinating reading.

In 1952, after 42 years operation, the company had grown from a payroll of 30 to over 3,000; from a small shop to a plant covering many acres. New faces, new blood, had infused the enterprise. New improvements in product, new sales policies, opened up new fields of opportunities. In 1952 the company passed the $500 million mark in commercial sales; it had paid out over $54 million in wages to workers and Clintonville had grown from a village of 1,800 to a town of nearly 5,000. That year W. A. Olen, president, asked to be relieved of his duties as president. His oldest son, Robert A. Olen, succeeded his father. Don Olen, the second son, served as manufacturing executive and works manager. James Driessen succeeded D. J. Rohrer as treasurer; G. F. DeCursin had become general sales manager and H. P. Sell, treasurer. Many other new faces were seen. These are the men who are today carrying forward the tradition of Four Wheel Drive Company, and the pioneers who made it all possible.

The Round Table

(*Continued from page* 158)

keeps the losses down for the fire department in general and actually benefits property owners and public by keeping insurance rates lower.

In addition to spreading covers, we ventilate the building and drain off water.

Karl Evans, Chief, Reno, Nev.: Twelve covers are carried on each ladder truck and six on the squad car.

The performance of salvage work cuts loss materially on structure and contents and is an excellent public relations gesture by the department and is greatly appreciated. The public benefits through lower insurance rates, due to holding loss down by salvage operations.

When the structure is not a total loss, the fire department removes all debris, sweeps out and mops up, installs inexpensive roof patches, closes all openings in a like manner and covers floors with sawdust to absorb moisture.

E. L. Smith, Chief, Salem, Ore.: All apparatus in our department carries salvage covers. Each of our six pumpers carries two; there are four on our ladder truck and 16 on our salvage truck.

We believe performing salvage operations at fires results in reduced fire loss and water damage. The building is often available for occupancy shortly after the fire, and personal property is protected.

The fire department benefits in that they take pride in their work and better public relations are fostered.

The general public benefits in that they receive better over-all fire protection, reduced fire loss and reduced insurance rates.

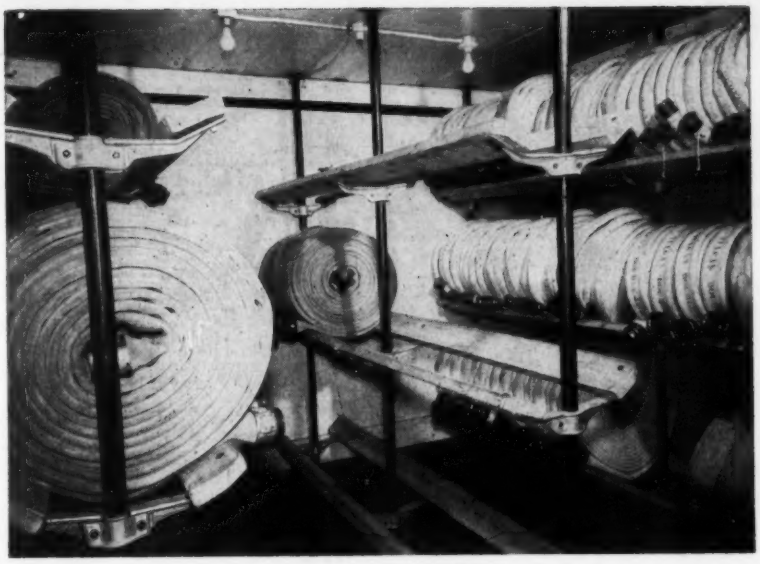
In addition to spreading covers, we remove water, rehabilitate premises, vacuum overstuffed furniture and rugs, remove smoke and deodorize building; in short, engage in complete salvage practices.

What's Burning

THE following list includes fires of $10,000 loss and over in the United States and Canada for the month of January, 1955.

Month Ending January 31, 1955

Fry, Ariz.—Green Top Shopping Center damaged. Short in electrical wiring.
Hawthorne, Cal. — Eddings Bros. Automobile Parts Store, damaged. Defective furnace.
Hollywood, Cal.—Normandie Village Apartments damaged.
Lakeport, Cal.—Arrow Hardware & Home Furnishing Co. destroyed.
Los Angeles, Cal.—Hyman Hendler & Sons yardage & custom jewelry supply store; Shirley Fabrics Corp. and McNeill & McNeill wholesale fabric store, damaged.
Los Angeles, Cal.—Post Office warehouse damaged.
Nevada City, Cal.—Sierra Hotel destroyed. Leaking butane gas.
San Diego, Cal.—George Burnett Furniture Co. store and warehouse destroyed.
San Jose, Cal.—Tracy Gardens Dance Hall destroyed.
San Jose, Cal.—O. C. McDonald Plumbing Co. building damaged.
Westwood, Cal.—Westwood Variety Store, spread to Stoppel & Son Storage Warehouse, Fruit Growers Supply Co., carpenter shop and telephone cable at 4th and Birch streets, damaged.
Yreka, Cal.—Costello & Deter Co. sawmill, a mile south, destroyed.
Yuba City, Cal.—Pulliams Furniture Store destroyed.
Blanca, Colo.—Building on Sky Valley Farms, destroyed.
East Haven, Conn.—New Haven District Office and plant of RCA Service Co., destroyed.
Fairfield, Conn.—Shed of Fairfield Lumber Co. damaged.
Bowers Beach, Del.—Peterson Oyster Packing Building destroyed. Backfiring of oil burner.
Lewis, Dela.—Storage building on service dock of Consolidated Fisheries Company plant, two miles east, destroyed.
Washington, D. C.—Building and stock of Harry Kaufman, Inc., department store, destroyed.
Pensacola, Fla. — Waterfront warehouse with 25,000 tons of nitrate of soda and 25 box cars loaded with nitrate of soda, owned by Louisville and Nashville Railroad, destroyed. Carelessness of three boys smoking.
Berwyn, Ill.—Jajek's Sporting Goods store damaged. Defective wiring.
Carmi, Ill.—Interior of old part of Carmi Township High School building, destroyed.
Chicago, Ill.—Sheldon Hotel damaged.
Chicago, Ill.—Kearns and Smith Spice Co. plant, damaged.
Greenville, Ill.—De Moulin Brothers & Co. plant damaged. Firm designs and manufactures school and college band uniforms, military college uniforms, caps and gowns and church and lodge furniture.
Harrisburg, Ill.—Harrisburg Junior High School destroyed.
Macon, Ill.—Eastern Star Sanitarium for the Aged, damaged.
Newton, Ill.—Apartment and ice cream store of



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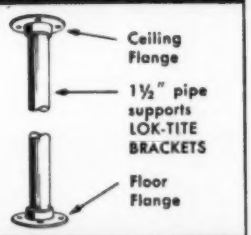
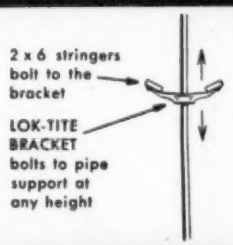
FEATURES

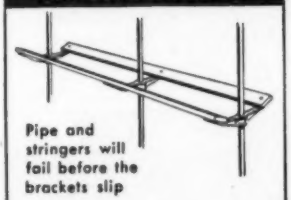
SIMPLE INSTALLATION



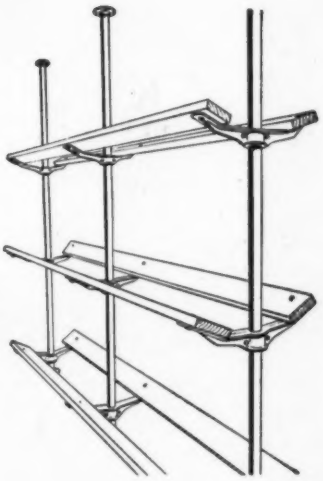
EASY ADJUSTMENT



BIG LOAD SUPPORT



Build Your Own Racks With Lok-Tite Brackets



MIGHTY few station houses have all the room they need for good housekeeping. Lok-Tite brackets help solve the hose storage problem by allowing ample ventilation and access in limited storage space.

Build your own racks with new or used materials. Design your own storage to take full advantage of the space available. Have ample room for fittings inspection and ventilation.

Lok-Tite brackets, light weight aluminum alloy, designed for strength and easy installation.

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157 NORTH WACO STREET **WICHITA, KANSAS**

M. P. Platz, spread to adjoining furniture and grocery stores, damaged.

Auburn, Ind.—Myers & Son vegetable storage plant damaged.

Delphi, Ind.—Odd Fellows Building occupied by clothing store, law, dental and insurance office and lodge halls, destroyed.

Indianapolis, Ind.—Steeg Pharmacy destroyed.

Lawrenceburg, Ind.—Tanners' Creek plant of Indiana & Michigan Electric Co. on outskirts, damaged. Spark from a welding torch.

Lebanon, Ind.—Building occupied by Hicks Body and Chemical Co., damaged.

Iowa City, Ia.—Building housing over 29 public organizations and clubs, destroyed.

Mt. Pleasant, Ia.—Hall & Weir Lumber Co. yard destroyed. Overheated furnace.

Lexington, Ky.—Max Goldberg clothing store, damaged.

Shelbyville, Ky.—Maple Grove Dairy and Maple Moo Ice Cream Bar, on U. S. 60, destroyed.

Sanford, Me.—Kostis Block mercantile and dwellings, damaged.

Andrews Air Force Base, Md.—Officers' Club destroyed. Short circuit in wiring.

Baltimore, Md.—Harlem Night Club in downtown destroyed; five clothing firms and New Howard Hotel damaged.

Baltimore, Md.—Martin Motor Corp. destroyed.

Parkville, Md.—Garage of Parkville Contractors destroyed.

East Cambridge, Mass.—Building occupied by Acme Soap Co. and Boston Statuary Corp., damaged. Short circuit.

Northampton, Mass.—Building occupied by F. W. Woolworth Co., New England Telephone & Telegraph Co. test office, Gazette Job Printing Co., Ruby's Furniture Warehouse, insurance office of John O'Rourke and branch office of Springfield Union, newspaper, destroyed.

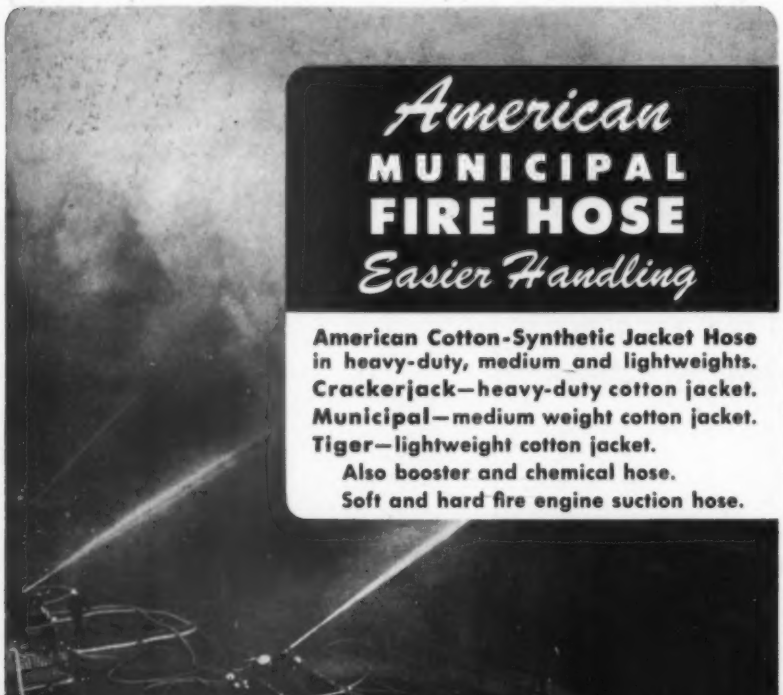
Ann Arbor, Mich.—Modern Appliance Co. destroyed.

Detroit, Mich.—Oakland Steel Treating Co., Southfield township, destroyed. Solution explosion.

Grand Rapids, Mich.—Vulcanizing Material Corp. damaged. Static electricity.

St. Ignace, Mich.—Barrett Lumber Mill destroyed.

Butterfield, Minn.—Grocery store and cafe heavily damaged; local post office and Butterfield State Bank damaged by smoke.



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Gladstone, Mo.—Parmelee Plastics Co., on U. S. Highway 169, Clay County, destroyed.

Kansas City, Mo.—Brewery warehouse and office of Anheuser Busch, Inc., damaged.

Kansas City, Mo.—Crown Drug Store and Chick-a-Dee Children's Shop, destroyed.

Bozeman, Mont.—Mount Alice Academy destroyed.

Libby, Mont.—Carl Cummings sawmill destroyed. Faulty diesel motor.

Missoula, Mont.—Orneshers Super Market and Gambles Auto Department Store damaged.

Cupsaw, N. J.—Cupsaw Food Market damaged.

East Paterson, N. J.—Building of Modern Crafts, Inc., furniture and toy making concern, destroyed.

Haledon, N. J.—Food Fair destroyed.

Jersey City, N. J.—Hart Chemical Co. damaged.

Hoboken, N. J.—Pier 2 destroyed.

Matawan, N. J.—Three factory building occupied by Fels Refractories Co., Industrial Washing Machine Co. and Gibson-Homans Co., damaged.

Millbrook Township, N. J.—Dwelling of George J. Busch, destroyed.

Millville, N. J.—Garage and terminal of Fowser Fast Freight Co., Millville Airport, destroyed.

Newark, N. J.—Abelson's Jewelry Store and Menter Stores, a woman's clothing store, damaged.

Passaic, N. J.—Dairy Maid Supermarket damaged.

West New York, N. J.—Mac & Mac Clothing Inc., damaged.

Astoria, N. Y.—Lumber yard of Windfield Door Corp. damaged.

Brockport, N. Y.—Landmark Hotel destroyed.

Brooklyn, N. Y.—Apostolic Church of Christ and apartments, damaged.

Buffalo, N. Y.—Shop-Rite Market destroyed.

Buffalo, N. Y.—Interior of St. John Kanty's Roman Catholic Church, damaged. Candles near a Christmas creche.

Depauville, N. Y.—Barn on LaFargeville road destroyed.

Deposit, N. Y.—Peoples Market, Kays Furniture Store, Hightowers Taxi Office, Fishers Barber Shop and Staskos Fruit Store, damaged.

Hempstead, N. Y.—Carpet Mart destroyed.

Lyndonville, N. Y.—Barn near this Orleans County Community, destroyed.

Penfield, N. Y.—Barn on farm in Sweet Corners road, destroyed.

Rhinebeck, N. Y.—Stanbrook Lodge on Silver Lake destroyed.

Syracuse, N. Y.—Spero Restaurant Supply Co. destroyed.

Charlotte, N. C.—Tenth Avenue Presbyterian Church destroyed.

Elizabeth City, N. C.—Building occupied by Economy Auto Supply Co. and O. B. West & Co., a child's ready-to-wear store, destroyed.

Mount Airy, N. C.—Old White Sulphur Springs Hotel, three miles out on Galax Highway, operated as a chicken farm, destroyed.

Tryon, N. C.—Sunny View Elementary School, 17 miles northeast, destroyed.

Hankinson, N. D.—Building housing Hankinson Bakery, spread to building next door housing Avon Cafe, damaged.

Canton, Ohio—Repair garage of Lattavo Bros., Inc., trucking company, destroyed. Man with cutting torch accidentally set off gasoline tank.

Cincinnati, Ohio—Copper Stallion, a restaurant, 18 miles west, destroyed.

Cleveland, Ohio—Interior of Bessemer Forging Co. plant destroyed. Explosion.

Leetonia, Ohio—Van Body Shop damaged. Kerosene.

Mansfield, Ohio—Hugh Raemelton dairy barn at southwest edge of this city, destroyed.

North Lima, Ohio—Mahoning Welding & Machine Co. plant damaged.

Sandusky, Ohio—Four small planes and hanger at Smetzer Airport, destroyed; restaurant damaged. Arson suspected.

Toledo, Ohio—Interior of Sylvania Country Club destroyed.

Oklahoma City, Okla.—Bolton's hardware store damaged. Spark from lacquer fumes.

Helens, Ore.—Magone furniture building destroyed. Cigarette.

Medford, Ore.—Trade Fair Drug Store contents and Rex Hotel destroyed. Overheated furnace pipe.

Medford, Ore.—Continental Lumber Co. destroyed.

Pendleton, Ore.—Jack and Rads Texaco station destroyed; Leslie Motors, damaged.

Prospect, Ore.—Dry kiln at Red Blanket Lumber Co. mill, destroyed.

Westport, Ore.—Troller Co. Salmon Warehouse destroyed.

Berwick, Pa.—St. Joseph Church destroyed.

Lewisburg, Pa.—Lewisburg Chair and Furniture Co. damaged. Sparks from electric motor.

Marietta, Pa.—York Bar Bell Foundry and Marietta Machine Co., manufacturers of bar bell and gymnasium equipment, 15 miles west, destroyed.

Myerstown, Pa.—Bahney Furniture Co. store and apartment building, destroyed.

Philadelphia, Pa.—Building occupied by Sterling Sportswear and building occupied by Segal & Co., destroyed.

Pittsburgh, Pa.—Warehouse occupied by United Wholesale Co., a novelty firm and Stamoulis Bros. Wholesale Grocery, spread to United firm and Crisante Produce Co., damaged.
Shamokin, Pa.—Nine dwellings at 409 to 425 South Shamokin street, destroyed.
Upland, Pa.—Upland Baptist Church, Chapel and recreation hall, destroyed.
Cranston, R. I.—Rhode Island Chemical Co. plant, Knightsville section, damaged. Explosion.
Valley Falls, R. I.—For Every Individual Club (FEI) destroyed.
Columbia, S. C.—Two warehouses at Columbia Airport, occupied by Long Motor Line Co. and Loxscreen Co., destroyed. Exploded oil heater.
Kershaw, S. C.—Super Laundry & Dry Cleaners destroyed; T. H. Faile Insurance Co., damaged.
Elizabethton, Tenn.—Valley Forge Elementary School damaged. Faulty heating plant.
Hampton, Tenn.—George Brown's supermarket, jewelry store, paint shop and apartments, destroyed.
Memphis, Tenn.—J. G. Schmidt & Son Sporting Goods Store damaged.
Memphis, Tenn.—Building leased to Cotton Division, U. S. Agricultural Marketing Service, damaged. Spark.
Houston, Tex.—Production Tooling Co. destroyed.
Houston, Tex.—Factory of Southwestern Upholsters in Harrisburg area, destroyed.
Lampasas, Tex.—Lampasas Dispatch, Joe Neale Furniture Co., Clyde Heatherly Insurance Agency and Terry Pharmacy, destroyed.
Elsinore, Utah—Building occupied by Elsinore hardware and Gordon's drug store, destroyed. Faulty wiring.
Price, Utah—Mutual Lumber Co., spread to Arrow Auto Lines, Barton Motors, Price Cafe and Elks Home, destroyed.
Davenport, Wash.—Davenport Union Warehouse damaged. Short circuit.
Dayton, Wash.—Masonic building liquor store, destroyed. Defective oil stove.
Enterprise, Wash.—Enterprise Electric building destroyed.
Granger, Wash.—James M. Bell's pharmacy and hardware appliance store, destroyed.
Kennewick, Wash.—Kennewick Social Club of Try-City Amusement Corp., destroyed. Cigarette.
Kettle Falls, Wash.—Vinther & Nelson Hardware Co. damaged.
Tacoma, Wash.—Riverside School, contents, destroyed. Ignition of janitor supplies.
Vancouver, Wash.—Vancouver Furniture Co. destroyed.
Dunbar, W. Va.—First Church of the Nazarene damaged.
South Charleston, W. Va.—Kanawha County Board of Education garage, destroyed.
Juda, Wis.—Barn on William Marean farm, five miles south, destroyed.
Keshana, Wis.—St. Michael's Roman Catholic Church, a place of worship for members of Wisconsin Menominee Indians, and adjoining monastery, destroyed.
Milwaukee, Wis.—Creamery and dairy barn at Milwaukee County House of Correction, destroyed.
Casper, Wyo.—Buildings of Casper National Bank destroyed.
Ocean Falls, B. C.—Ocean Falls Apartment building destroyed.
Alvinston, Ont.—St. Matthew's Roman Catholic Church destroyed.
Aylmer, Ont.—Downtown building occupied as apartments and drug store, destroyed. Furnace explosion.
Cabano, Que.—Caldwell Beach Hotel destroyed.
Montreal, Que.—Storage warehouse of Workman Bag Co., Ltd., also used for storage by adjacent Canada & Dominion Sugar Co., destroyed. Defective stove.
Regina, Sask.—Two sections of the huge World Grain Show Building on Exhibition Grounds, destroyed.
Galena, Alaska—Government Building headquarters destroyed.

I.A.F.C. Directors' Meeting

(*Continued from page* 130)

review of the recommendations of the Committee on By Laws, Fire Marshal William J. Scott, Chairman, for revisions of the Association's governing laws.

Chief Roi Woolley, Assistant Editor of Fire Engineering, reported for the Committee on Communications, emphasizing the re-organization of the Committee by the appointment of Chief Thomas O'Brien as Vice-Chairman, and the addition of the following new members: Chiefs Lewis Marshall, Providence, R. I.; Forrest Lucas, Dayton, O.; John Klinck, Memphis, Tenn.; Eugene Fields, Omaha, Neb.; Robert Bogan, Baton Rouge, La.; Lyle Stevenson, Stockton, Cal.; and Edward MacDonald, of White Plains, N. Y.

Recommended Sub-Committees to direct phases of the drive on false alarms were approved by the Board, as follows: Sub-Committee on Nomenclature and Terminology, Chief Lewis Marshall, Chairman; Sub-Committee on Survey (Cause and Effects) Chief Forrest Lucas, Chairman; Sub-Committee on Legal and Jurisdictional, Chief Stuart Potter Chairman. Chief Thomas O'Brien gave a quick review of the unusual progress being made by the New York Fire Department in the reduction of false alarms in that city.

Chief Stuart Potter of Greenwich, reported as Chairman of the Committee on Publications - Review, and Chief Wayne Swanson, Rockford, Ill. (second vice-president), spoke as Chairman of the Advisory Committee on Volunteers. This year the I.A.F.C. will emphasize closer cooperation with volunteers.

Chief William Fitzgerald, first Vice-President and Chairman of the Committee on Salaries, directed the discussion of the remuneration of fire fighters. It was voted to continue the research and other activities of this Committee. Chief Fitzgerald also reported for the Budget Committee.

Final meetings of the Board were held Saturday morning (January 8). These consisted largely of reports of the various Divisions.

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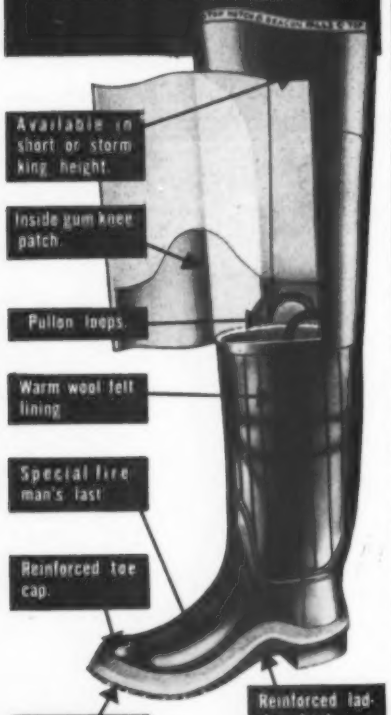
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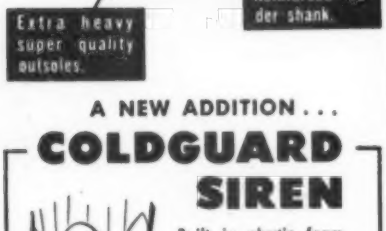

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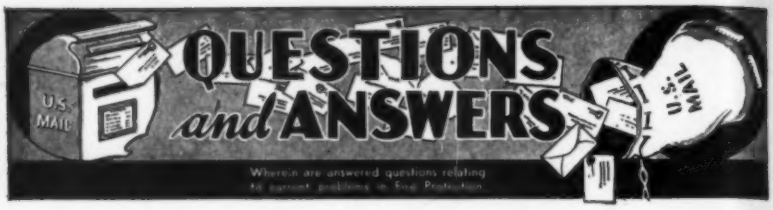

Maximum Suction Lift

To the Editor:

How high can water be raised by suction?

W. S.

Answer: If the atmospheric pressure is 14.7 pounds, as it is at sea level, a theoretically perfect pump could raise water approximately 34 feet.

Actually, a pump which can raise water 25 feet by suction is considered to be in good shape.

We have at least one instance on record where a positive displacement fire engine pump raised water 28 feet by suction, and there may be other instances where water may have been raised even a little higher, but we do not know of them.

When water is raised by suction, it is actually the atmospheric pressure which forces the water up, as a partial vacuum is created within the pump. As each pound of atmospheric pressure is equivalent to a head of 2.304 feet, the maximum theoretical lift can be quickly determined by multiplying 2.304 by 14.7. The practical lift is, however, well below this figure, as mentioned above.

Reaction and "Instantaneous" Reaction

To the Editor:

I would appreciate your giving me the following information:

1. The formula to find the pressure created by water hammer, or sudden closing of a nozzle.

2. The formula for finding the pressure created by the sudden opening of a nozzle or momentary reaction. For instance, the Oklahoma A. & M. Textbook gives momentary reaction at the nozzle as $1.8 \times D^2 \times P$. In "Fire Service Hydraulics," the formula is given as $1.5 \times D^2 \times P$. This is for reaction rather than for *momentary* reaction. The National Fire Protection Association uses this formula for both reaction and also the sudden opening formula. They use the pump pressure as nozzle pressure for just an instant. For example, if 150 pounds engine pressure, 50 pounds nozzle pressure and 1⅛-inch tip are used, the formula then becomes $1.5 \times 50 \times 1\frac{1}{8} \times 1\frac{1}{8}$, or 284.625 as the momentary reaction when the nozzle is opened suddenly.

3. I have found a difference in the K factor for small hose lines in the "Fireman's Textbook" and "Fire Service Hydraulics." "Fire Service Hydraulics" gives the following value of K: ½-inch tip, .0115; ¾-inch tip, .042; ⅞-inch tip, .068, while the "Fireman's Textbook" gives the following ½-inch tip, .0063; ¾-inch tip, .032; ⅞-inch tip, .059.

4. What is the accepted formula for the vertical reach of a fire stream? I have a formula that is much easier to use than the one given in "Fire Service Hydraulics."

In example 183, Page 173, in "Fire Service Hydraulics," the formula is given as $H = \sqrt{24 - P^2 - 1900} - 11$, or 83.3 feet, using 60 pounds as nozzle presure and a 1¼-inch tip.

The formula I used is $\frac{5}{8} \times P + 26$ feet for a ¾-inch nozzle tip and adding 5 feet for each ⅛ inch increase in tip size.

The formula then becomes $\frac{5}{8} \times 60 + 46$, or 83.5 feet.

O. J. D.

Answer: There is a lot of difference between nozzle reaction and "instantaneous" nozzle reaction. The second as outlined in your letter, is the presure created in hoze when the nozzle is closed rapidly. This is commonly known as water hammer, or ram.

If you will look in "Fire Service Hydraulics," under the head of "Water Hammer or Ram," you will understand that no formula would give an accurate answer to problems involving hammer, or ram in fire hose. It all depends on how rapidly the nozzle is closed and how much elasticity there is in the hose line.

In the case of nozzle reaction, you have a steady pressure while the water is flowing from the nozzle. The reaction is the force which tends to "back" the nozzle against the men who are holding it.

The formula for nozzle reaction as given in "Fire Service Hydraulics" is the one commonly accepted by all authors, and is one which gives fairly accurate results.

There is no formula we could suggest that would give you the water hammer, or ram, when a nozzle is closed, for as indicated above, it depends upon the speed with which the flow is arrested.

The factors for "K" for small hose lines appearing in "Fire Service Hydraulics," are based upon actual test results. It is possible that other authors have run tests with different types of hose of the same diameter, and have secured different figures. However, the factors used in "Fire Service Hydraulics" are quite generally accepted throughout the country by civil service commissions.

With regard to formulas for vertical reach of fire streams, if there are other formulas which give results that tally with experimental figures, then they should receive equal credit in examinations. However, if they deviate materially from experimental results, then they should not be employed in answering fire department examination questions.

Layouts for Fog Nozzle Use

To the Editor:

Our department has been fog-minded for some time. Originally we went in for fog as a means of handling minor oil and gasoline fires and to this end have worked out, in our own mind, basic evolutions, and made a training film for our own use of some 800 feet of color film. We like fog and a standing rule calls for its use on nearly every type of fire we run into.

More recently, we have added to our fire film library the two films, "Using Water Wisely" and "Master Streams." It is these films which have really set folks to talking about fog, not only in our own department, but in a score of others where we have already booked our films.

Our local outfit feels that we are losing out to some extent on fog applications, inasmuch as standard operating procedure calls for a 2½-inch line from a hydrant to the fire building, then one or more 1½-inch lines into the building equipped with all-purpose nozzles, whereas our country cousins, generally speaking, require a pump job from well or brook on nearly all their fires and thus can boost their pressures up accordingly.

A suggestion has come forth as follows, and this is our question:

Suppose we place a 2½ x 4½-inch double female connection more or less permanently to one side of our pumper intake. It would be fitted with a cap so as not to interfere with normal pumping operations should the other side of the pumper be used.

Now, rolling in on a fire which calls for heavier streams than the booster, a line is dropped at the hydrant while one man and pumper continue on to the fire building. Pump operator puts his pump into gear and charges booster line. Officer makes check on location and progress of the fire. This leaves two men—we operate our permanent companies with a minimum of five men—to attack the fire with the booster line.

Pumper operator then disconnects the 2½-inch line, attaches same to pump intake and signals hydrantman for water, shutting tank to pump valve as he does so. We now have hydrantman and pump operator available to hook up 1½-inch line to take over from the booster line if necessary, and to us it would seem that our pump operator could supply sufficient pressure to give us 100 pounds more or less on the 1½-inch fog nozzle.

Our problem is: How long a stretch of 2½-inch hose might we lay into this hookup, and still expect

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the pumper to keep the 1½-inch line supplied with pressure of 100 pounds? Our hydrants provide a normal minimum pressure of 75 psi and mains are sufficiently large to assure an ample supply.

Our reason for bringing up this question is the time element of laying a line, returning to a hydrant and hooking up for a normal pump operation. To us, this would more than offset the gain to be made in stepping up the nozzle pressure. Were this summer, we should be out making a few experiments on our own hook, but present temperatures are not conducive to such noble aspirations.

C. D. H.

Answer: With a layout such as you suggest, the pumper being placed at the fire, and a 2½-inch line feeding the pumper from the hydrant, the hydrant pressure of 75 pounds would be able to supply sufficient water to the pumper through approximately 2100 feet of hose, to enable it to deliver a 1½-inch fog stream on the fire under a pressure of approximately 100 pounds.

If two similar fog lines were used, each of 1½-inch hose, equipped with 1½-inch fog nozzles, the hydrant pressure should be able to supply the pumper through a stretch of 600 feet of hose. In each instance, we allow an intake pressure at the pumper of approximately 10 pounds.

Were your load of hose so arranged that the necessary 1½-inch hose could be pulled off, and the 2½-inch hose laid from the fire to the hydrant, you could save some time, in addition to retaining the flow necessary for one or two 1½-inch fog nozzles as the case may be.

As a matter of fact, you would have more pressure available at the hydrant to give additional pressure, or additional streams at the fire, with the engine placed at the hydrant. However, the question of stretching from the hydrant to the fire, or from the fire to the hydrant, is a matter of local practice.

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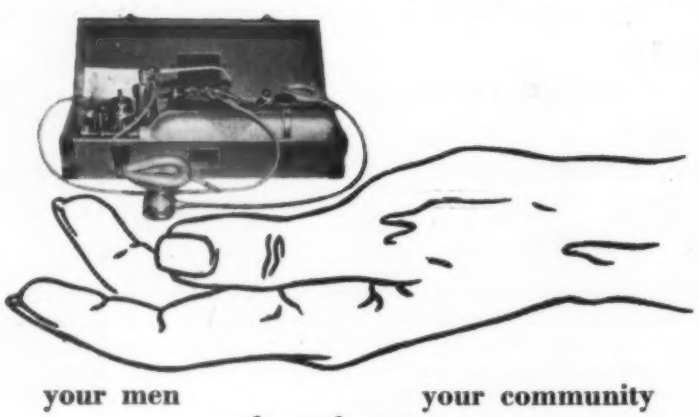

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World Wide Fire News

By Roi B. Woolley

Ship Blaze Fought by 18 Companies

A general alarm fire aboard the S. S. Sundale, a Canadian merchant ship, docked at the Todd Shipyards, Bayonne, N.J., on Dec. 20th, 1954, took three hours of punishing effort to subdue. Damage, however, was reported relatively light although the vessel listed because of the water thrown into her by the many hose lines.

Fifteen Hoboken fire companies responded to the area on the general alarm turned in soon after the first alarm, received at 7:15 p.m. Within an hour later they were joined by three additional companies from Weehawken when it was discovered that technically the ship was within the boundaries of that township. Firemen and equipment were dispatched from Jersey City to cover Hoboken while the Hoboken Fire Department was occupied with the blaze.

Fire Chief George Bonin of Hoboken said the fire started in a paint locker below decks and was confined to the immediate vicinity. Workmen, it is reported, had been using cutting torches and stowed them in a locker where the hot torches may have ignited paint.

Fire damage was not given but the ship was unable to leave the shipyard as scheduled on the 21st.

* * *

Jap W.W. II Balloon Bomb Found

A Japanese ballon bomb, sent aloft in World War II, has been found in the wilds of northeast Alaska, still intact after ten years exposure to the arctic weather.

The device, similar to many the Japanese drifted over western United States during the war, was spotted by a bush pilot. It was recovered by Air Force personnel, neutralized and sent to a museum in Dayton, O.

The balloon came to rest near the Scheenjek River, north of Fort Yukon. It was still highly explosive and was constructed of rice paper so durable it could not be pulled apart by two men. The bomb was a five-kilogram thermit incendiary. The balloon measured about 32-feet in diameter.

* * *

Three Storms Caused $276 Million Loss

The National Board of Fire Underwriters on Dec. 25th, 1954, reported that the total insured property damage caused by hurricanes Carol, Edna and Hazel would probably exceed $276 million.

The combined damage brought by

Carol, which struck Aug. 31 last, and Edna, which followed on Sept. 11, would run more than $138 million and would involve 745,000 claims. As for Hazel, which blew in on Oct. 15, preliminary studies show that insured losses for that storm will approximate those for Carol and Edna. Damage estimates do not include marine or automobile losses.

According to J. Victor Herd, president of the NBFU, the three hurricanes will result in the highest amount of insurance payments ever made, exceeding even payments for the San Francisco fire of 1906. At that time, insurance companies paid $220 million in claims.

The largest previous windstorm losses occurred in the great storm of Nov. 25, 1950, which resulted in $188 million being paid to policyholders, according to Mr. Herd.

* * *

Korea Get Further Singeing

While investigators were probing into the cause of the fire which raged for seven hours through the Army's biggest quartermaster depot in Korea, on Nov. 27th, 1954, gutting three fourths of the sprawling installation and burning 20 homes, with loss of many millions, two other fires struck Pusan, Korea.

This latest blaze, on Dec. 26th, destroyed more than 800 homes in downtown Pusan, leaving an estimated 4,000 to 8,000 persons homeless.

A north wind fanned the flames through the flimsy buildings on the southern slope of Yong Du Hill. It was attributed by police to a neglected candle that set fire to the paper flooring of a house.

American and Korean fire fighters succeeded in checking the fire just before it reached the business district. There was no report of casualties, but police and firemen feared some might have perished in the blaze, which broke out at 1:30 A.M.

Earlier in December, another fire roared over the north slope of Yong Du Hill, destroying the homes of 7,000 persons. Four persons died in that blaze, the cause of which has not been disclosed.

* * *

Boy Scouts Get Practical Training

Ten Boy Scouts from Hoboken, N. J., had a narrow escape and picked up a bit of fire escape lore, on Dec. 29, last, when they were forced to leap to safety through the windows of a mess hall at Camp Todd near Oakland, N. J., as flames destroyed the structure.

The fire was discovered by a caretaker at Camp Tamarack, about a mile away, who gave the alarm to the Oakland Fire Department about 1:40 A.M.

The fire broke out while the boys were sleeping in the Camp, which is in the Ramapo Mountains, about three miles from Skyline Drive. No one was injured but all camp equipment and the boys' clothing were destroyed.

Fire Chief Dennis Clark said the fire probably was caused by an overheated stove. Rain aided the volunteer fire fighter to keep the flames from spreading.

From the World Fire News Ticker

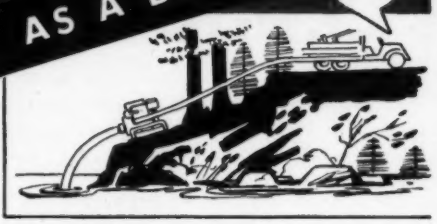
A bus passenger heading for Puerto Octay, Chile, on December 29, last, brought along a jar of explosives, which exploded, from some unknown cause,

Fight Fires Faster!

with the DUAL FIRE FIGHTER

DIRECT PUMPING

AS A BOOSTER



Use the Dual Fire Fighter direct when truck pumper is unavailable.

Prevents costly damage to valuable equipment . . . extends your pumper truck range as much as 300 feet . . . reaches otherwise inaccessible water sources.

When fire strikes — prompt, sure action is an urgent necessity, and water is often inaccessible to the truck pumper because of trees, fences or other obstacles.

Two men carry the 162-pound Gorman-Rupp Dual Fire Fighter. Fighting a fire directly, or filling a vital need as a booster pump, the Gorman-Rupp Dual Fire Fighter starts throwing water in less than one minute.

Write for Bulletin No. 9-FD-11

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MANSFIELD, OHIO

got enough EARS?

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Now every member of every department can have radio communication for as little as $49.95

Write today for further information.

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- Prices to meet any budget.
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and injured 27 travelers. . . . Fire broke out on December 28, 1954, in a building at Queen Mother Elizabeth's country residence, Windsor Great Park. The wife of a ground keeper dashed through heat and smoke twice to bring out her three children. Three fire departments were called. One room of the lodge, near Windsor Castle, was damaged. . . . Three children and two men were killed in December last, in an explosion at a fireworks plant in the outskirts of Bogota, Columbia. . . . Seven additional deaths on December 11, last, raised to twenty-six the total number of dead in an explosion which occurred the preceding Friday in a fireworks factory north of Manila. . . . In Hong Kong, fire destroyed about 800 squatters huts on the night of December 19, 1954, killing four children and injuring 40 adults. Some 6,000 persons were left homeless. . . . Discovery of a Communist plot to sabotage the Cuban sugar crop by burning the cane fields was reported December 31, 1954, by rural guards in Havana Province to the Havana Urgency Court. Guards arrested ten persons accused of setting fire to cane in various localities. . . . More than $50,000 worth of elaborate gambling equipment seized from horserooms and one-time night clubs in Saratoga Springs, was burned December 28, last, at the Ballston Spa village dump. Arthur H. Christy, special assistant attorney general in charge of the state-ordered investigation of gambling in Saratoga, applied the match to oil-soaked truckloads of roulette wheels, bird cages, slot machines, etc. . . . The Ipswitch, England, Fire Brigade has made a report to the government on materials used to fireproof and insulate some buildings. Chief among them was highly-flammable dried grass and straw. . . . When wind-driven flames destroyed most of a small Japanese hospital in Tokyo, December 27, 1954, all 100 patients were carried to safety with the help of Americans from near-by U. S. Air Force bases. Three entire wards of the Fussa City Hospital burned down before the blaze was doused by Japanese firemen and Air Force fire fighter teams. . . . Fire spread through four floors of the 19-story Marine Building, Vancouver's tallest structure, early November 30, last, causing an estimated $100,000 damage. Fire knocked out elevator system forcing 1,500 workers to trudge up stairs to their jobs. Fire started in elevator shaft at 16th floor. Tough'un for Vancouver's fire fighters. . . . In Victoria, B. C., Vancouver's neighboring firemen were saved a possible job of "fire watch" when plans for burning tons of crime horror and love comic books were dropped by the Junior Chamber of Commerce. . . . A German World War I mine that rode the seas for almost four decades and finally threatened shipping in the Elbe River, was captured and exploded by German sappers, December 28, 1954. . . . Up in Brownsburg, Que., workers of the Canadian Industries, Ltd., plant got their safety award just in time. A few hours after the directors presented to the workers an award for completing 1,500,000 hours without a lost-time accident, an explosion ripped through the plant injuring two persons. . . . As the Danish freighter Lexa Maersk was leaving Singapore Harbor for New York, with a cargo that included 1,800 tons of rubber, fire started in the hold. Firemen fought the blaze from Saturday, December 25 to Tuesday, December 28 when they gave up efforts and the ship was beached by tugs in 23-feet of water. All 52 persons aboard were removed safely.

PLEASE EXCUSE US—

but—we were deluged with a veritable avalanche of inquiries as a result of our preliminary announcements—please bear with us and we'll gladly reply to every one—

WE APPRECIATE YOUR INTEREST IN OUR REVOLUTIONARY NEW—

RADIO OPERATED SIGNAL BOX SYSTEM

Equally adaptable to any community—large or small—with or without existing alarm system. Ideal for manufacturing plants—big industrials — institutions — government installations. Simple—effective—dependable—and ECONOMICAL.

NO WIRING INSTALLATION

NO RENTAL CHARGES

SIMPLE TIME TESTED OPERATION

1. Conventional manual switch activates powerful transmitter which sends coded alarm to fire house. Each box has its own code for instant location identification. **2.** Receiver in fire house and receiver in fire chief's car can receive and identify location of five hundred different boxes. **3.** Location of activized box is instantly sounded out on bell at fire house and in chief's car. **4.** Location of activized box can also be sounded on sirens, air whistles, etc., to alert volunteers and entire community to location of fire.

SAFER ELECTRONIC FIRE ALARM, INC.

CALL BOX DIVISION • 838 RIVER ROAD • EDGEWATER, N. J.

General Alarm Fire Damages Sign Plant

Machinery and paint used for making and repairing road signs was destroyed late in December when a $100,000 general alarm fire severely damaged the New York State department of public works plant in Hamburg, N.Y.

Russell L. Draudt, Fire Chief of Hamburg, said the blaze was the most spectacular in the village in at least 10 years.

The fire destroyed the rear two-thirds of the 80 by 200 foot building, a one-story frame plant.

Charles R. Waters, state district engineer, said the blaze apparently started near the roof where an electrical heater unit was located. Flames destroyed expensive machinery which sheared, pressed and sandblasted highway signs. Equipment lost included silk screens, paint and "scotch light" used for the signs. A station wagon was also destroyed.

The fire was discovered at 6:50 p.m. and reached its height at 8 o'clock when exploding paint drums hurled 200-foot high flames over the structure. The fire was under control by 10:30.

The building was to have been replaced soon by a larger two-story fireproof plant on property adjacent to the yard.

—PAUL DITZEL

December Fire Losses

Fire damaged or destroyed an estimated $870,984,000 worth of property in the United States last year (1954), the National oBard of Fire Underwriters has reported. This is 3.6 per cent less than that for 1953, when estimated monthly losses totaled $903,400,000, which included one large industrial loss in August of 1953.

According to Lewis A. Vincent, NBFU's general manager, estimated losses for December (1954) totaled $83,881,000, an increase of 36 per cent over losses of $61,663,000 reported for November (1954) and an increase also of 0.5 per cent over losses of $83,440,000 reported for December, 1953.

These estimated insured losses include an allowance for uninsured and unreported losses.

Month	1954	1953	1952
January	$86,493,000	$76,659,000	$74,155,000
February	78,928,000	72,706,000	69,925,000
March	84,821,000	83,471,000	72,254,000
April	77,933,000	67,362,000	67,380,000
May	62,282,000	64,239,000	62,354,000
June	65,533,000	67,644,000	58,585,000
July	69,532,000	74,938,000	61,675,000
August	78,163,000	107,713,000	56,462,000
September	64,087,000	68,613,000	58,949,000
October	57,668,000	68,551,000	63,958,000
November	61,663,000	68,064,000	65,129,000
December	83,881,000	83,440,000	74,127,000
TOTAL.	$870,984,000	$903,400,000	$784,953,000

Convention Dates

Feb. 22-25—FIRE DEPARTMENT INSTRUCTOR'S CONFERENCE. Annual meeting, Memphis, Tenn. Chairman, Richard E. Vernor, P. O. Box 1089, Chicago 90, Ill.

March 8-9—PHILADELPHIA SAFETY CONFERENCE. Annual meeting, Philadelphia, Pa. Session on March 8th to be sponsored by the Keystone State Fire Chief's Association. For information, contact Leonard D. Roberts, President, Trevose, Pa.

Apr. 11-15—GREATER NEW YORK SAFETY COUNCIL. Annual Safety Convention and Exposition, sponsored by Greater New York Safety Council and 71 cooperating agencies. For infoumation, contact the Council, 60 East 42nd Street, New York 17, N. Y.

April 25-28 — MINNESOTA STATE FIRE SCHOOL. Annual meeting, University of Minnesota Institute of Agriculture, Farm Campus, St. Paul, Minn. For further information contact Leonard C. Lund, Deputy Commissioner, Fire Marshal Department, Saint Paul 1, Minn.

April 25-29—INTERNATIONAL SEMINAR IN ARSON DETECTION AND INVESTIGATION. Annual meeting, Memorial Union Building, Purdue University, West Lafayette, Ind. For information regarding the seminar, write to Professor Shelby Gallien, Seminar Director, Public Safety Institute, Purdue University, Lafayette, Ind.

June 20-23—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS. Annual meeting, Wentworth-by-the-Sea, Portsmouth, N. H. Secretary-Treasurer, John W. O'Hearn, 206 Mt. Auburn Street, Watertown, Mass.

June 22—CENTRAL WESTERN FIREMEN'S CONVENTION. Annual meeting, Eaton, Ohio. Secretary, Don Campbell, 613 N. Cherry Street, Eaton, Ohio.

Sept. 12-15—CANADIAN ASSOCIATION OF FIRE CHIEFS. Annual meeting, on board C. S. L. "St. Lawrence." Secretary-Treasurer, Chief Allan H. Clark, Fire Headquarters, Lakefield, Ont.

Sept. 14-17—PACIFIC COAST INTER-MOUNTAIN ASSOCIATION OF FIRE CHIEFS. Annual meeting, Sun Valley, Ida. Secretary-Treasurer, Jay W. Stevens, Merchants Exchange Building, San Francisco, Cal.

Sept. 19-22—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS. Annual meeting, Omaha, Neb. For further information contact Chief Daniel B. Tierney, Secretary-Treasurer, 8 Robbins Road, Arlington 74, Pass., or the Headquarters Office, Hotel Martinique, Broadway at 32nd Street, New York 1, N. Y.

NEW HANDLIGHT

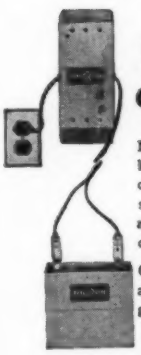
NICKEL CADMIUM BATTERY OUT-LASTS 2000 DRY CELLS

15 to 20 year service

"Revolutionary" is the only word to describe this new Dual-Lite Nickle Cadmium Battery Handlight . . . a one time purchase . . . a permanent piece of fire fighting equipment.

CHECK ***these advantages against the dry-cells you are now using—***

- ☐ **8000 hours**—15 to 20 years or over 1000 charges and discharges with approximately 8 hours lighting on each discharge.
- ☐ **Equal to 2000 dry-cells**—(8000 hours of lighting). At $3.50 each, that's $7000. Compare this with Dual-Lite's single cost!



BATTERY CHARGERS

Nickle Cadmium batteries may be charged with any standard 2 or 3 amp automobile charger.

Charger BC-1 2 amp—8 hour, single battery— **$12.98** F.O.B. BPT.

Charger BC-16 2 amp—8 hour, 1 to 16 batteries..... **$149.50** F.O.B. BPT.

Also above models with 3 amp delivery in 5 hours.

- ☐ **Holds 80% Charge for Year**—A fully charged Nickel Cadmium battery delivers a full 80% of its capacity after one year of non-use, and 60-70% at end of 2 years. Add water only every 1 or 2 years, in some cases longer.
- ☐ **Use Standard Charger**—No special equipment necessary.
- ☐ **Can't Freeze**—Leave in service trucks, etc. in coldest weather without damage.
- ☐ **Works Upside-down** — Watertight battery can't spill.

Weight less than 7½ V. dry-cell. Case made of steel with cast aluminum handle and rubber grip. Powerful beam. **$49.98** F.O.B. BPT.

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Write for Bulletin 6600-F

MORE **EFFECTIVE** FIRE PROTECTION

CITY • RURAL • FOREST

MODEL 6600 PUMPER—Instantly Self-Priming—No waiting when seconds count

HIGH PRESSURE—Use one or two hard-hitting streams or fire-blanketing fog-spray

LIGHT WEIGHT—Easily carried to source of water or fire area

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Short Cuts and Gadgets

LET THERE BE LIGHT

Good illumination is essential at night fires—and at many a day fire where smoke obscures the sun. Getting the necessary light up above in a hurry, particularly in laddering a structure, is not always an easy task, but the Benton Harbor, Mich., Fire Department (Chief M. Shepherdson), has gone a long way toward solving that problem.

The department has installed a flood light on the main fly of its 100-ft. aerial ladder. This is connected to a cable on a reel (mounted on the turntable) which allows the cable to play out as the ladder is extended and then takes up the slack when the ladder is retracted. The light can also be removed and carried around the roof, or for inside operations.

The design for the light was conceived by a local industrialist, Stanley Miller, following a fire in one of his plants, during which firemen carried portable lights to the roof. When the light is on the truck, Mr. Miller has so designed it that a spring-tensioned swivel enables it to be locked in any position, up or down. By using a ball and socket joint, the light can be used in any position on a sphere.

The idea has reportedly made a hit with representatives of the company that produced the ladder.

* * *

JAMESTOWN, N. Y., PLUGS INSPECTIONS

Anent the message in this issue featuring the I.A.F.C.'s drive to "Save the Lives of 4,000 Children From Fire," a memo received from Fire Chief Charles R. Dorman, of the Jamestown, N. Y., Fire Department is interesting.

"We have used the Radio Inspection system since July of 1954. I have this suggestion to pass along as an adjunct to this system. We place a large sign (30 x 15 ft.), on each side of the engine on inspection duty. This sign reads: *"Fire Prevention and Inspection."* Thus the public knows why the apparatus is parked in that area.

"Using the radio inspection system has benefited our department in the following manner: (1) Making it possible to inspect all important hazards 3 times each year; (2) Giving our 'public relations' a lift; (3) Boosting the morale of the men through the knowledge that everyone is doing his share."

* * *

MARKING THE POSITION OF THE HOOK END ON PLASTER HOOKS

We thought we had published about all the "short cuts" there were on the subject of plaster hooks (pike holes), but James L. Hatton, Chief Training Officer of the Norfolk Fire Division, Norfolk, Va., proves we're wrong, and comes up with something new and which we're glad to pass along. We quote his letter:

"Having read the December issue of FIRE ENGINEERING with the usual interest, I feel it a duty to submit the method of marking the position of the hook end of our plaster hooks for your Short Cuts and Gadgets page. The several methods submitted in the past are good but we suggest that you try this one.

"Take a discard or new shovel handle and rivet it on the end of your favorite paster hook, making sure that you have it at right angles to the hook. Here you not only have a definite market but also a good handle to really do some fancy pulling.

"Since I am a very poor artist I have not included a diagram but will leave this to your imagination."

Thank you Brother Hatton. We don't believe a sketch is needed. Now, have we exhausted all short cuts on this subject?

* * *

FALSE ALARM SLOGAN

A slogan adopted by some Westchester County, N. Y., fire chiefs, in their effort to combat the growing false alarm evil is:

"Make the Sounding of False Alarms a Crime—
and Make the Punishment Fit the Crime!"

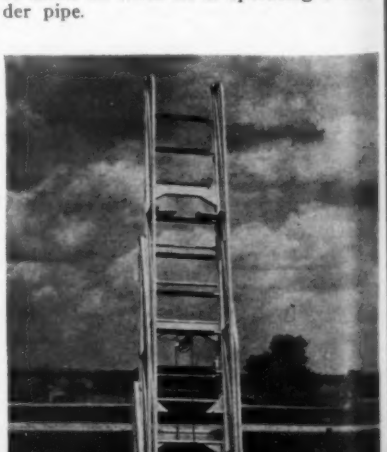
* * *

NOTHING NEW UNDER THE SUN

In the December, 1954, issue of FIRE ENGINEERING, this column published an item headed "New Idea for Ladder-Man Hoist" which described a set of steps mounted on the fly-ladder section of the Lakewood, Ohio, aerial ladder.

Now we hear-tell from no less an authority than Lester Stevenson, president of the Seagrave Corporation, that his company has been equipping its aerial ladders with similar steps on request, for many years. Actually they were adopted as optional equipment many years ago.

These steps are hinged and when not in use they fold out to the side of the ladder where they do not interfere. According to Mr. Stevenson, his company does not necessarily recommend their use for elevating a fireman to the top, but does recommend them for the man to stand on when he is operating a ladder pipe.



SPREADING THE WARNING TO BED SMOKERS

Some time ago we reprinted a humorous, but very pointed printed device employed by some fire departments and hotels to serve as warning about smoking in bed.

It doesn't matter whether the message is signed by hotel management or fire department (we're inclined to believe the fire department's name has more weight), or whether it is printed in blood red, or black, or where it is placed in the hotel guest rooms—as long as the guests get it and heed it.

The Martinsburg, W. Va., Fire Department has printed the message in neat form on small cards (4 in. x 2 in.), in red ink for general use in hotels, places of public assembly, meetings, etc., wherever they want to get over the warning about smoking in bed.

We believe it's worth while reproducing the text of this message for the benefit of our readers who have not spotted it before.

"Remember—If you plan to smoke in bed. Inform the desk where to send your remains. Leave a list of your nearest relatives at the desk. Leave your last will and testament with the clerk. Check your insurance policy, making sure the premium is paid. Inform the guests on each side of you of your intentions to endanger their lives. Advise others on your floor to check for nearest fire escape or exit. Call the local fire department and ask them to stand by for a fire call from your hotel."

MARTINSBURG FIRE DEPARTMENT

* * *

The Old Timer says:

Have you ever responded to an alarm to find a small fire in the wiring of a motor vehicle? And have you ever found that no wrench or tool was handy for disconnecting one of the battery cables?

Of course you can yank 'em or chop 'em off the leads in a pinch, but it's a lot more shipshape and saves damage, if you've got a wrench handy—and use it.

One fire department (part-paid) keeps an adjustable wrench in a bracket on the driver's seat of every rig. Another carries a wrench kit hung under the cowl of the dash of every rig. It's surprising, say officers of these departments, how often the tools come in handy, and save stopping to dig the right wrench out of the tool kit (if there is one on the rig), which may be stuck away in a compartment, or otherwise out of easy reach.

And speaking of disconnecting batteries, I know of one department that keeps a wrench of the proper size tied to the battery case with a piece of string that will break when the wrench is jerked free. This is "just-in-case" a fire develops in the wiring system of the vehicle. You've heard of such fires, haven't you!

* * *

POWER SAW CUTS ESCAPE HATCH IN AIRPLANE

It was announced last December that the British have developed a portable electric saw that can slice a 3-foot square escape hatch in the fuselage of a crashed airplane in about 15 seconds.

The rescue device will be used at Britain's main airports to replace the firemen's axe in aircrash rescue work, it is stated.

POWHATAN DOUBLE HYDRANT GATE VALVES

Quarter-Turn

POWHATAN — always alert to modern needs, adds these two precision built fixtures to its ever-expanding line of fire fighting equipment. In business since 1892.

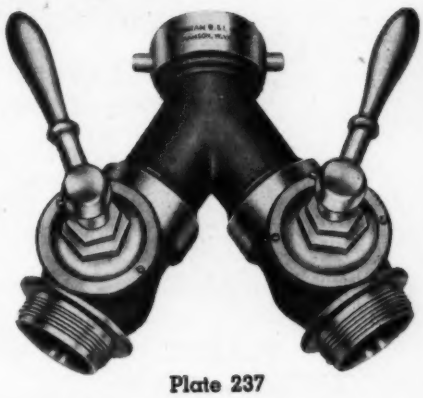


Plate 237

Plate 238

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Established 1892

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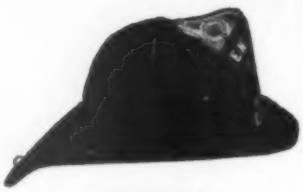

PRICES TO SUIT ALL BUDGETS

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The "NEW YORKER"—No. 5A

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The "CLIFTON"—No. 900

ALUMINUM
The "SENATOR"—No. 350

Write for Catalog 341

Cairns & Bro., Inc. Allwood, Clifton, N. J.

Outfitters to Firemen Since 1836

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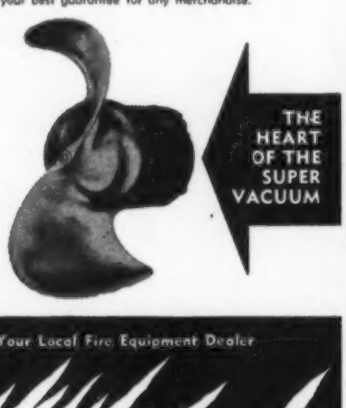
Revolutionary New Principle Increases Fire-Fighting Efficiency!

●The Super Vacuum Smoke ejector is a powerful portable fan unit designed especially for fire departments. This design is a new and revolutionary principle in moving air. Several thousand Super Vacuum Smoke ejectors are in use throughout the United States and Canada. Controlled ventilation is new and very necessary in fire fighting. Years of service and satisfied users are your best guarantee for any merchandise.



●The secret of Super Vacuum is the patented fan blade. Conventional fans chop the air and push it back. Whereas the Super Vacuum fan blade is a perfect spiral air screw which creates a partial vacuum, suction is created over the entire face of the blade and the air or smoke is discharged in a high velocity spiral. There are no dead spots—that is why Super Vacuum outperforms other fans twice its size.

Write for Additional Information or Contact Your Local Fire Equipment Dealer

MANUFACTURED EXCLUSIVELY BY

Super Vacuum MANUFACTURING CO.

319 East 17th Avenue • Denver 3, Colorado

Obituaries

Chief William Sudeith Dead

Chief William J. Sudeith of West St. Paul, Minn., died Nov. 30th, last, of a heart attack while fighting a fire.

Chief Sudeith was formerly chief of the St. Paul City Fire Department. He retired in 1948, following a change in administration and later was named head of the West St. Paul Fire Department.

Chief Sudeith was born in St. Paul, Aug. 16, 1887, and appointed to the department in 1909. He became successively driver, first pipeman, squadman, and in 1921 was made lieutenant. That same year he was advanced to captain, and in 1930 he was named assistant chief. In 1934 he was appointed chief and reappointed every two years until 1948.

Named to succeed Chief Sudeith is Anthony Ringitsch, 31, a member of the West St. Paul Fire Department since 1947. He had been a Junior Captain.

D. H. Spangler Dead

D. Herbert Spangler, president of the Hahn Motors, Inc., Hamburg, Pa., died at his home in that city on Friday, January 7th, 1955. He suffered a severe heart attack a little over two years ago and never fully recovered.

He started in his teens as a mechanic at the Baldwin Locomotive Works and Auto Transit Co. (now P.R.T.) in passenger bus service, Philadelphia, Pa. He came to the then called Hahn Motor Truck & Wagon Co. in 1917, and was in the body manufacturing department for about eight years, when he changed to sales, selling Hahn commercial trucks and fire apparatus. In 1931 the firm was re-organized under the name of Hahn Motors, Inc., which name still continues. William G. Hahn, first president, met an untimely death in 1937. His brother, Adam G. Hahn, accepted the presidency until his retirement from the firm in June, 1940, and Mr. Spangler was elevated to president and general mana-

Portrait of Deceased Chief Johnson Dedicated

A portrait of Fire Chief C. M. Johnson of the Knoxville, Tenn., Fire Department, who died on August 5, 1954, was unveiled and dedicated with fitting ceremonies on January 21, 1955, at Fire Headquarters, Knoxville.

Present at the ceremonies, which were officiated over by the Mayor of Knoxville, were Mrs. Johnson, the late chief's widow, relatives and friends, many of them his old associates in the Fire Department.

Members of the Department contributed to the portrait, which will have a permanent place on the wall of the Fire Chief's office.

ger, which he held until his death.

During the war period the firm built many specialized bodies, radar towers and other Ordnance equipment. With the termination of the war, this firm has been building specialized parcel delivery bodies and fire apparatus and has developed a dual engine truck and dual front axle bogie with centerpoised steering for both axles.

Harold Segrave Dead

A victim of cancer, Harold Segrave, formerly Eastern District Manager of the Mine Safety Appliances Co., and widely known in the fire service, passed away January 20 at his home, 21 Littlejohn Lane, Rockledge, Fla.

Mr. Segrave, 61, retired three years ago after 35 years of service with Mine Safety.

Surviving are his widow, a son, a daughter and three grandchildren.

Incendiary Fire Damages School

Two Buffalo, N.Y., firemen were hurt slightly, Dec. 30, while fighting a two alarm blaze believed started by juveniles in an abandoned school.

Firemen under Commissioner Charles W. Halloran confined the blaze to about half of the third floor and a part of the attic above. Dense smoke prevented them from ventilating the elementary school at 651 Bailey Ave. until heavy boards covering windows were pried off.

The first alarm was sent in at 11:08 p.m. by a passerby and Battalion Chief Walter J. Puckhaber ordered the second at 11:14.

Commissioner Halloran estimated damage at $10,000 and agreed with Detective Sgt. Fred J. Thomasula, head of the police arson squad, that boys apparently broke into the school and started the blaze.

The school was discontinued several years ago and was used as an annex for the South Park High School, but was abandoned about five years ago.

—PAUL DITZEL

Arson Suspected at Church Fire

Sheriff's arson investigators are seeking a burglar or vandal who set fire to a new Mormon Church in the Covina District east of Los Angeles on December 16.

Flames were already breaking through the roof of the auditorium when the first-in company, Engine 29 of the Los Angeles County Fire Department arrived shortly after the alarm was received at 8:24 a.m.

A second alarm was immediately requested and five County companies under Batt. Chief Ward Kleinsmith and Asst. Chief Harvey Anderson finally controlled the fire after an hour's battle.

The structure was about 70% destroyed, but firemen managed to confine the fire to the auditorium part of the building.

Damage to the structure, which serves the Covina and Glendora Wards of the Church of Jesus Christ of Latter Day Saints, was estimated to be in excess of $100,000.

Investigators said someone apparently broke into the church shortly after dawn, pulled down a bulletin board, and set fire to the pages of a telephone book on the auditorium floor.—CLIFF DEKTAR

No lubrication necessary
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Bronze spur gears (Oberdorfer alloy No. 16438)

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PERFORMANCE DATA—No. 26 and No. 13 PUMPS

Pump No.	Pump Shaft R.P.M.	Pounds Pressure	Hose Length and Size	Dry Suction Lift in Feet	Vol. in Gal. Per Minute
26	1600	120	500'—1½"	20'	150
13	1600	120	500'—1½"	20'	75

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Persons in the News

Daly Named New Commissioner of Buffalo Fire Department

William M. Daly has been named as Acting Commissioner of the Buffalo, N. Y., Fire Department, replacing Charles W. Halloran who resigned to become first deputy state industrial commissioner following his appointment by Gov. Averell Harriman.

Former Commissioner Halloran was active in AFL affairs before he was named to head the Buffalo Department last year.

Commissioner Daly, who was appointed from deputy commissioner, joined the department in 1917, was made a lieutenant in 1926, a captain in 1933 and a battalion chief in 1941. He was named one of the department's three deputy commissioners on Jan. 1, 1954.

Daly, 57, in taking over the $12,000-a-year post, said, "I will continue the same high standards set up by Commissioner Halloran and will do my utmost to maintain the present high efficiency and morale of the department."

PAUL DITZEL

Moore, New Chief at Clinton, Mass.

Thomas F. Moore, 29, has been appointed Chief of the Clinton, Mass. Fire Department. Moore is believed to be the youngest full time chief appointed under Civil Service rules in the state. He succeeeds William E. Powers who retired after twenty-seven years service as chief.

Clinton is a manufacturing town of 14,000 population. The Department has thirteen permanent men and thirty call men, with five pieces of apparatus.

HENRY T. HANSON

Elliott Chief of North Grosvenor Dale

James Elliott has been elected chief of the Thompson Fire Engine Company for his twentieth term. The Department is entirely volunteer, protecting this small woolen manufacturing village of North Grosvenor Dale, Conn., on the border of southern Massachusetts.

HENRY T. HANSON

Irons Heads Mendon, Mass., F. D.

William F. Irons, a member of the Mendon Fire Department for the past twenty years, has been appointed chief to succeed Harold F. Lowell who resigned, after twenty-seven years as chief, due to pressure of his dairy business.

The town has a population of 1,500. The Department consists of twenty call men with three pumping engines.

HENRY T. HANSON

Umphress Elected

Marion Umphress, chief of the Garden Grove Volunteer Fire Department, has been elected president of the Orange County Fire Chiefs Association.

He succeeeds Chief Ed Stringer of Anaheim.

CLIFF DEKTAR

Chief Loftus Directs Sewer Tunnel Rescue

New York City fire fighters waged a gruelling struggle on December 28, last, to extinguished a smoky underground fire, and rescue sandhogs trapped 100 feet below the street surface in a sewer tunnel under construction in Astoria, Queens.

The fire, started by an acetylene torch, trapped three sandhogs and drove others to the street. Two other workers were injured in the effort to rescue their mates, who were finally brought up by members of Rescues 1, 2 and 4, special called, and crews of a one-alarm assignment.

Fire fighters had to attack the fire and make rescues down a narrow shaft, operating under extremely hazardous conditions resulting from smoke, fumes and heat, and unusual atmospheric pressures which reduced the time limits of serviceability of the breathing apparatus which was vital for the undertakings.

The picture shows Chief of Department, Peter Loftus, about to descend into the narrow hoist shaft with a member of a rescue company.

Chief Ireland of Danbury Retires

Chief John H. Ireland head of the Danbury, Conn., Fire Department since August, 1949, has retired upon reaching the mandatory retirement age of 70. In line to succeed him is First Assistant Chief George C. Hanna.

Chief Ireland announced his retirement at the annual dinner of Water Witch Volunteer Hose Company, Danbury, January 12th.

Chief Ireland, prior to his appointment as chief in 1949, served under every permanent chief in the department, starting with Thomas Lounsbury and later Peter Beckerle and John McNamara, all now deceased. He first entered the department in 1912 and served as first assistant chief for about 20 years before being appointed head of the department.

Thanks STEWART POTTER

Tracy Retires in Great Barrington

John P. Tracy who has been Chief of the Great Barrington, Mass., Fire District, also town Fire Chief and Forest Warden, resigned his several positions January 1, 1955.

His resignation was accepted with regret by the board of selectmen. He joined the local fire company in 1928 as fireman and in 1939 was elected chief. He was also appointed chief of the Great Barrington Fire Department by the selectmen. He is also a member of the prudential committee and has one more year to complete his present term. This will give him 20 years on the committee.

The Chief, who operates an electrical and heating business and serves as wire inspector in the area, states he can no longer give the necessary time to his Chief's duties and other local activities.

He has been a member of numerous fire service groups, he was president of the Berkshire County Forest Wardens for two years; president of the Western Massachusetts Fire Chiefs Club for two years. He is a member of the International Association of Fire Chiefs. the New England Association of Fire Chiefs, and is a county cordinator in civil defense.

Chief Don. White of Florence, Ala., Retires

Donald White, for 52 years head of the Florence, Ala., Fire Department, retired January 1, 1955 with the grateful thanks of the people of his community, and admiration of his fire force for his over half a century of service.

A "good man," true citizen, a churchman, but most of all a fireman, he was termed by those who met to honor him, among them Mayor W. N. Harrison, S. W. Esslinger, chairman of the Civil Service Board and others at a banquet given him at a downtown fire station on his last night of duty.

He was sworn in as chief in 1902 (salary $35 per month) when the department consisted of a little wagon and an old gray mare. Today the Florence Fire Department has three stations and most modern equipment to protect over $75 million assessed property.

In recognition of his service, Chief White was presented with several gifts and a letter appointing him "Chief Emeritus of the Florence Fire Department for life."

Bob Lovelace who became fire chief January 1 has seen 27 years of service with the department.

Deputy Chief George Barlie Retires

One of Westchester County, New York's most colorful fire fighters retires in February, ending 37 years of service with the White Plains, N. Y. Fire De-

Trinidad Chief "Shops" American Fire Forces

Edward Hanlon, Deputy Fire Chief of Trinidad and Tobago, taking a busman's holiday, enroute from Trinidad to England, shopped around as many American fire departments as he could in the brief time between trains and ships.

He was tracked down and photographed at the Greenwich Fire Department Headquarters, Greenwich, Conn., along with Chief Stuart Potter, former president of the New England Association of Fire Chiefs, and member of several International Association of Fire Chiefs Committees.

Chief Hanlon sums up our fire service as being quite all right—in fact, top hole!"

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PAYS FOR ITSELF
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GIVES BRAKES WHETHER OR NOT THE MOTOR IS RUNNING — AND IN MOST CASES IF MASTER CYLINDER OR BOOSTER FAILS. GIVES BETTER CONTROL OF STOPPING, HOLDING, AND STARTING OPERATIONS—WHETHER THE TERRAIN IS ROUGH OR HILLY—OR THE LOAD LIGHT OR HEAVY.

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partment. He is Deputy Chief George W. Barlie.

The retiring officer was tendered a testimonial dinner by the members of the Department January 25th at Hidden Brook Steak House at which the Uniformed Firemen's Benevolent Association presented him a gold badge and the members of the Department a watch. The toastmaster for the occasion was Lieutenant Raymond Brady.

Chief Barlie's long service was extolled by Rev. Carol F. W. Strobel, Department Chaplain; Edward J. Controy, Deputy Public Safety Commissioner; Fire Chief Edward J. MacDonald and Captain George Martin (Acting Deputy Chief of Department).

Chief O. M. Vance Retires

Chief Oliver M. Vance of the Ridgewood, N. J., Fire Dept, retired on January 1, 1955, after 26 years of service in that Department. Chief Vance was appointed Chief on January 1, 1948, and served in that office until his retirement. He was the first paid fireman to be appointed.

Ex-Chief Vance has announced that after he rests up following his arduous duties as Chief, he will enter the fire equipment sales field. The chief served as Bergen County Fire coordinator for 5 years. He is a member of the Paid Chiefs Club and Eastern Association of Fire Chiefs.

Assistant Chief William H. Haldane was appointed Chief of Department on January 1, 1955 to succeed Chief Vance.

He entered the Department on February 23, 1934, and served in all ranks until his elevation to Chief.

Chief Haldane, while Assistant Chief, was the department Drillmaster. He is chief instructor of the Bergen County Fire School jointly sponsored by the N.J. & N.Y. Fireman's Assn. and the Bergen County Freeholders.

He is a member of the International Association of Fire Chiefs, Paid Fire Officers Assn. and is Vice President of the Ridgewood Exchange Club.

With Our Readers

The Problem of Large Fires

TO THE EDITOR:

There have been many times when I felt that I should write you a note of thanks and appreciation for your efforts over these many years to advance the Fire Service.

A great many articles in Fire Engineering have struck my fancy, and somehow or other, I always neglected writing you concerning them.

I have just finished reading your editorial on "Large Loss Fires" in the December issue of FIRE ENGINEERING. I think it is certainly very much to the point, but what you have said, concerning the larger portion of them being outside the range of fully equipped municipal departments, is so true.

Today in this period of push button production, top management is often neglectful, and ignores the basic fundamentals of fire to safety.

While in England, this past fall, attending the fire conference over there, I listened to an excellent article on In-

dustrial Fire Protection, presented by a representative of the Imperial Chemicals Company. It was a very good presentation, outlining in complete detail, the organization of this chemical plant, in the interests of fire safety.

The speaker brought out one point which, to my knowledge, has not been stressed very much in the States. He pointed out that the person on the job, often, is the determining factor in fire spread. He stressed the necessity of the workman knowing just what to do and how to do it, if fire started in or about the process or job he was working on. In doing this, he did not forget to say that a prompt alarm to the municipal department was essential.

Of course, if the fire is large or has the potential of a fast spreading blaze that is one thing, but there are so many incipient fires that start in our industrial plants, which progress rapidly and often result in large losses, because of the ignorance of the workman.

If the man on the job, in the event of a small fire, were trained in the use of first aid appliances, and was prompt in his actions towards extinguishing that fire, I am of the opinion that some of our industrial losses could be reduced.

Sincerely,
HENRY G. THOMAS
Chief of Fire Department

Hartford, Conn.
Dec. 22, 1954

Article on Chemical Tank Explosion Useful

TO THE EDITOR:

We appreciate indeed the permission granted to us to reproduce in its entirety the article entitled "Ten Firemen Killed When Chemical Tank Exploded," from the December, 1954, issue of FIRE ENGINEERING.

We feel this is a most important report on a serious situation confronting many communities, and we wish to place a copy of this article in the hands of each of our local city and county Civil Defense Directors in the State of New York, and also with each of the heads of their respective fire services.

Sincerely yours,
FOR THE DIRECTOR
MILTON V. O'CONNELL
Deputy Director of
Civil Defense
Public Information

Jan. 14, 1955

Protecting Front Mount Pumps

TO THE EDITOR:

I was very much pleased to note your article in the November issue of FIRE ENGINEERING regarding protecting front mount pumps during frigid weather. I wish to express my appreciation for the research you have done on this problem.

The consensus would seem to be that this is largely a maintenance problem, and that the fire companies who will take the trouble to drain their pumps properly after alarms should experience little or no difficulty.

I have been transferred from the Special Risks Department to the Engineering Department of this Organization, and my work has consisted largely of inspecting fire departments. Comments I have received from the members of these various departments would

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For further information, ask your Fire Equipment Distributor, or write

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lead to generally the same conclusions as those expressed in your article.

Yours very truly,
STUART M. DEAN
New York Fire Insurance
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Syracuse 3, N. Y.
Nov. 24, 1954

Alarm Boxes vs. Telephones

TO THE EDITOR:

I drop you a line in reference to the fine article by brother J. N. Pryce on the fire alarm box controversy.

I read the article in Readers' Digest and typed out a letter of protest to the editor of that publication. In the letter I ran the gamut of the same arguments which your writer uses, including the grounding out of the boxes on a broken line, continuous and dependable supervision and a few references to New Orleans, etc. In my letter I urged very strongly that, inasmuch as the article admitted that this was a controversial subject, that space be given for a writer who would tell the other side of the story.

No answer was forthcoming from the Editor of said magazine.

Shortly thereafter, Maine had a hurricane which was followed closely by a second marked by torrential rains.

During the first hurricane all power was shut off on orders from the fire department and most sections of our city was without power for from twelve to thirty-six hours. Yet our fire alarm system was in working order within three hours from the time the storm struck and only a few circuits were put out of service at all.

During the second hurricane, despite trees down, all power off and torrential rains, not a single fire alarm circuit failure was reported.

Yet, during the first hurricane over 30,000 phones were out of service for periods ranging up to two days and, in the second, the damage was even more devastating, the phone company bringing crews into Maine from points as far away as Michigan! If your house was on fire would you want to await the arrival of a repair crew from Michigan so that you could transmit an alarm? I doubt it, and I doubt that Mr. Detzer (author of the Readers' Digest article—Ed.), would, either.

The above facts I rolled up into a letter and sent off to Readers' Digest together with a copy to Mr. Detzer. And you know, up to this writing there has been no reply forthcoming.

We have faced the false alarm problem like everybody else. Four years ago we made our own movie showing what could happen in the event a false alarm was pulled, and have waged a continuous campaign through our schools with effective results. We have dropped our annual false alarm average by better than 60%.

Yet, in preparing our records for the annual report next week, we find that false alarms by telephone are increasing to such an extent as to be alarming. Within the past month an outdoor phone booth has been installed directly across from one of our fire stations. And in that short time, some person has sat comfortably in that booth, dialled the fire department, given an alarm of fire and remained seated in the booth while they

watched us gallop out on a wild goose chase with the engines.

On the date I typed out my second letter to Readers' Digest I was compelled to contact a small town up in the county. I requested the local operator to connect me with the fire department there and, after an interminable wait, was informed that they "did not answer." Nor did they all that day. But I needn't have worried, for I found out later that their fire phone was simply out of order!

And just a couple of weeks ago, in attempting to contact another small town fire department, the operator in that town informed me that the man who took the fire calls was having his day off and she just didn't know who else to contact!

Our city makes a practice of adding at least ten new boxes annually and intends to continue to do so.

Congratulations to Mr. Pryce for his very fine article!

Yours very truly,
CHARLES D. HESELTINE
Chief Fire Inspector

Fire Department
South Portland, Me.
Dec. 22, 1954

A "New Look" in Study Prints

"Our Fire Department, How it Saves Our Lives and Homes" is the title of a set of 16 authentic educational color prints illustrating how the nation's firemen live, study, train and work, produced by the U.S. Educational Prints Div. of the Latin American Studio, Santa Barbara, Calif.

The prints, which are on heavy cardboard with rounded corners, 13½ in. x 10½ in., are in full color, and besides being excellent reproductions of authentic scenes in the fire fighter's life, show careful adherence to technical detail.

The series, which comes in a titled file case, is one of several such issued by the company in the series of "U.S. Educational Prints," some of the others covering Police Department; Highways; Papers, etc.

Each print carries on the reverse a complete story about the illustration and what it depicts. Each is titled and numbered according to index on the carton. No mounting is necessary.

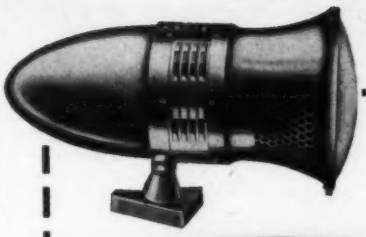
Among the subjects pictured and described are: "Organization, Administration, Manning and Insignias of Our Firemen"; "How to Become a Fireman"; "Some Causes of Fire in Our Homes"; "Our Firemen Respond to Our Call"; "Grass & Brush Fires a Menace"; "Fire Department in Action at a School Fire"; etc. Also covered are such subjects as rescue squads, fireboats, engine and ladder companies, etc.

Complete information and prices may be had from the above company.

Legal Decision in "Penny Fire"

An insurance adjuster said on January 21, 1955, that the Cheshire Grange, of Cheshire, Conn., can keep a $13,500 payment for damages caused by a fire blamed on a penny in the fuse box.

The adjuster, Kingsley Beecher, said the fire insurance policy would have been void only if it could be proved that the coin was inserted with the deliberate intention of starting a blaze.



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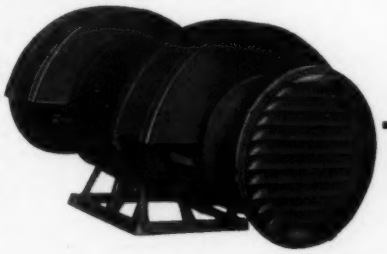

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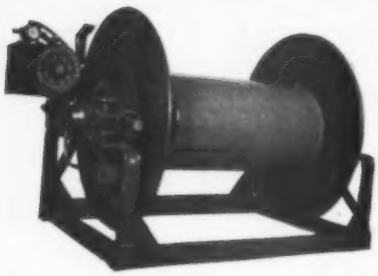

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Fire Fatalities

(*Continued from page* 125)

places. How this was done is a story in itself, but suffice to say the casualties from fire in that city, in all categories, showed a marked drop from that time on. Partly as a result of this effort, Jay later left the Portland Department to take a post with the Pacific Coast office of the National Board of Fire Underwriters.

Among Jay's later contacts was Chief John H. Alderson of Los Angeles. When he became president of the International Association of Fire Chiefs in 1951 and was confronted by the appalling loss of life among young people, one of Chief Alderson's first acts was to appoint a fire prevention committee, with Jay as its head, giving him a free rein to attempt nationally what Jay—and a few other pioneer fire preventionists had been attempting locally.

In May 1951, the Committee, which bore the names of foremost figures in the field of fire suppression and prevention, education, labor and government, headed by former president Herbert Hoover, got to work. Every fire chief whose name could be secured, received a personal letter from Chief Alderson setting forth the aims and hopes of the Association and urging cooperation in the movement. At the same time, all members of the Association were given the details of the drive and asked to pledge support.

Thus the fire service embarked on the first constructive nationwide effort to reduce, if not eliminate, the disgraceful loss of life among children and infants as a result of fires. It was pointed out that the campaign, by reducing the number of fires, would also save adult lives, some of which would be our own fire fighters. Also, there would be a coincidental lowering of property losses.

The drive started June 1, 1951, spearheading a movement which, in the words of the I.A.F.C. it was hoped would eventually get the safety story into every home in America by means of professional, uniformed firemen and by volunteers with their caps and badges, and with the forestry men in the rural territory. The basis of it all, was a personal call upon every home occupant, and his or her education, primarily on the hazards that have caused such casualties, and secondly, personal inspection of the premises

As a highlight of the campaign, fire departments were asked to agree to do 12 things, from signing their pledge cards, to calling upon all influential factors in their communities, including newspapers, radio and TV stations, service clubs, police and other local municipal bodies, fraternal, labor, commercial, religious and educational groups, to win their support.

The crux of the campaign was—and has been through the four years which followed: (1) home inspections; (2) business inspections. A "Calendar of Activtities" was prepared containing suggested month-by-month assignments and actions for local fire departments.

Encouraging support was pledged by organizations such as the National Fire Protection Association, National Board of Fire Underwriters, International Association of Fire Fighters, American Municipal Association, the National Editorial Association, Public Adminstration authorities and others. The mail brought over 4,000 pledge cards that first year, and firemen from Berkeley, Calif., to Brockton, Mass.; from Portland, Ore., to Portland, Me., and Providence, R. I., rolled out on home and business inspections.

Right from the start, these contracts proved productive of results. In the first place, they developed the technique and format for the inspections. They did something better—they resulted in more favorable public relations for the fire department, wherever the visits were carried out according to plan. Finally, and most important, from the information gathered, the departments were able to reduce fires and consequently casualties, in number and severity by eliminating hazards, and to pre-plan fire attack in places of special importance in the event fire did eventuate.

Financing Proved a Problem

All this, and the many related activities, cost money. No one interest or group, certainly not the International Association of Fire Chiefs with it limited income, could hope to finance a long costly drive. Certain large cooperating organizations generously contributed both the services of their members and limited funds. But it was apparent that additional finances would have to be raised if the worthy enterprise was to carry on.

This was partially done through the sale of Baby Bonds. These "Baby Live Saving" bonds sold for $1.00 each. They were not redeemable and were little more than a certificate of acknowledgement to the person who had contributed the dollar. Books of bonds were sent fire organizations and fire departments. *"Buy a Bond—Save a Baby"* was the slogan.

Funds received from sales of the Baby Bonds were used by the I.A.F.C. Headquarters office to defray mailings

Ten children and woman die in Christmas Eve holocaust.

Exploding kerosene thrown on a cooking stove touched off fire that raged through frame tenant house near Parkin, Ark., on Christmas Eve, killing 11 persons, injuring 5 others, all members of two farm families. One mother and 5 children, and 5 children of another family, perished. Here Mrs. Raul Montana weeps amid ruins where fire claimed all but one of her brood.

and other campaign expenses. To date, something in excess of $12,000 has been raised by the sale of these bonds, nowhere near what was, or is necessary, to finance the campaign, but at least a start.

The story of the progress of the campaign makes interesting reading but cannot be told in detail here. In 1951, the first year of the effort, Los Angeles pushed its inspections over the 700,000 mark. Portland, Ore., started its dwelling inspections June 1, 1951. On two days, a Friday and Saturday, 6,460 dwelling inspections were made, and by the end of the month, Chief Grenfell reported 92,000 dwellings reached. *"Exceptionally well received"* and *"Men are enthusiastic,"* reported the Chief. Portland papers helped pave the way for the firemen.

As of February 1, 1952, Chairman Stevens had received 813 postcards from different departments reporting home inspections, which reached a total of 2,750,349. "Somewhere among those nearly 3 million homes," Chief Stevens reported, "some fires were prevented by elimination of hazards found. Just how many we will never know. How many lives were saved we will never know. But returns more than warrant our keeping on."

During 1953, with no spectacular promotion other than the steam supplied by Chairman Stevens, and certain cooperation by a few of the more progressive leaders in the fire service, inspections continued to roll along. Nine cities alone reported 510,628 home inspections, the two leaders being Providence, R. I., with 120,000 (Chief Lewis A. Marshall) and Houston with 115,000 (Chief J. W. Lobue).

Although the most notable progress was made in areas served by full time, professional fire forces, some volunteer departments were active in the movement. Here is a letter received by Chief Stevens from the Lemoore Volunteer Fire Department, Lemoore, Calif. Chief Robert P. Long:

"We have just completed our home inspection program of approximately 500 homes and about 50 business houses and offices with Assistant Chief Arthur Borges as chairman. This job was 100% coverage and done with our volunteer department of 25 men working at it after their day's work was done. We have made similar inspections other years, but not nearly as complete as this one. My men have seen the benefits and have been able to put over the program with the house owner. Good results are bound to come from such a job.

"Also, the men in our Volunteer Department would like to have you accept the $25 enclosed, one dollar each, for the furthering of this program nationally, as they did not have an opportunity to buy Baby Bonds. This is the proceeds from one meeting night *fines* and not out of our general funds."

Results Being Felt—the Campaign Continues

On January 7, 1955, Chairman Jay Stevens reported to a serious-minded conference of Officers and Board of Directors of the International Association of Fire Chiefs in New York City the status of the campaign, to date. It was optimistic. Much has been ac-

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McINTIRE GATE VALVES

Fig. 164AN
4½" swivel female x two 2½" male Gated Siamese. Quick opening, ¼ turn valves.

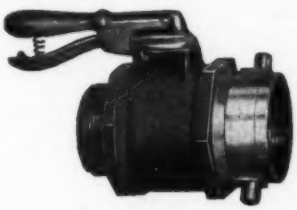

Fig. 163
Made either Right Hand or Left Hand 2½" male x female, gate valve.

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complished, he said, but only the surface has been scratched.

It is not known just how many fire fatalities there were in 1954. Many believe it a safe guess that the total exceeds the 4000-a-year-average which fire fighters hope to reduce. However, this need not mean necessarily that the "Save Children" effort is a failure. The facts advanced by Chief Stevens prove otherwise.

The first of these facts is that in those cities where home and business inspections have been pushed consistently, declines in the number and severity of fires have been apparent, in some instances, notably so. Several such municipalities report a corresponding drop in fire casualties. It is quite possible that this fact may have a bearing on another situation—the reduction in nationwide 1954 fire losses from those of 1953 (the National Board reports a 3.6 per cent drop).

Fire Engineering has already told the story of how New York City is increasing its inspections all along the line, and the beneficial results (Jan. 1955 issue, page 28). Now come encouraging reports from other cities. We are told Los Angeles last year reduced the number of fires by 4,390, or 26 per cent, from those of 1953.

This decrease was accomplished notwithstanding the fact that the city increased by 66,950 in population and added 61,000 new buildings with a total value of over $408 million during 1954.

In spite of that growth, alarms dropped from 30,952 in 1953 to 26,862 in 1954. Actual fires responded to in 1953 were 21,647 and in 1954, 17,257. False alarms were reduced from 1,998 in 1953 to 1,830 in 1954, a reduction of 168. There were 246,351 Fire Prevention inspections made by the Bureau of Fire Prevention and house-to-house inspectors by companies operating in their immediate districts.

Only 28 deaths from fire occurred in this city of over 2 million people in the past 12 months. If this record could have been extended nationwide, according to Chief John Alderson, there would have been 10,000 less deaths from fire than actually occurred.

Chief Alderson credits the field work of the Fire Prevention Bureau; educational program in public and parochial schools, through the Junior Fire Department program. The major factor, he believes, is the fact "that members assigned to regular station duty have grasped the importance of the house-to-house inspection program."

The City of Chicago, which has experienced high life loss rate, has undertaken to intensify its inspection practices. As yet the fire department is not fully radio equipped, hence radio-house-inspections are limited, but Chief James E. Collins, head of the Fire Prevention Bureau, has been able to prove the value of inspections in a selected area where the fire department has encountered a high ratio of fatal fires. The concentrated drive made in this district produced "remarkable results." Home inspections for 1954 in that city are reported at 132,000.

State Fire Marshal Robert B. Taylor reported that 25 per cent of all the homes in the State of Oregon were visited by firemen inspectors and were made fire-safer homes as the result of these visits. He stated that 80 per cent of the 80 participating cities had reported a total of 124,102 inspections made. An interesting sidelight of the report was the fact that 34 per cent of the hazards found were fuse boxes overfused and 18 per cent were defective extension cord wiring.

In a special communique to *Fire Engineering*, Chairman Stevens reports the following tally of inspections during the past year:

New York City	399,000
Seattle	162,000
Los Angeles	145,000
Dominion of Canada (68 cities)	144,000
Houston	140,000
Providence	135,000
Cincinnati	112,000
Los Angeles County (excl. of cities)	92,000
Portland, Ore.	84,000
Hartford	79,000
Milwaukee	65,000
Birmingham	60,828
Oakland	58,000
Salt Lake City	50,000
Tacoma	50,000
St. Louis	37,000
Boston	34,000
Baton Rouge	29,000
Burbank, Cal.	27,000
Fresno, Cal.	27,000
West New York, N. J.	13,000
Green Bay, Wis.	12,000
Dayton, Ohio	10,000

The foregoing returns in round numbers, alone indicate 2,400,000 inspections in 155 cities out of 699 reporting.

Chief Stevens Sums Up

In a statement to the author of this study, Chief Stevens summed it this way: "It has been a long, uphill fight. But it is producing real returns. The reports for 1954, particularly, indicate the great possibilities to be realized by inaugurating and maintaining active home and business inspections. But the fight to reduce the deaths and injuries from consuming fire has only just begun. Our effort has only begun to show what can be accomplished." Watch the future, especially in those cities where such inspections have become a regular order of the day. The months ahead are going to decide, he believes.

"We haven't really had home inspections so far as the nation is concerned," he maintains. "We have not covered 5 per cent of homes. There are still many cities and communities where the thought of making inspections of private homes is repugnant. Those places must be sold on the idea, just as chiefs must in turn sell their public, their householders, their taxpayers, on the wisdom of inviting accredited members of the fire department to make such inspections, before attempting actual operations."

Chief Stevens admits it takes preparation and training. You can't start right out, willy nilly, barging in on homekeepers without preparing the ground. "It's like farming," he avows. "You've got to first prepare the soil. Do some cultivating. Plant some seeds. You require the cooperation of press, radio and TV for this preliminary cultivation. This will open doors for the members of the fire department. There's powerful psychology in a uniformed man, with a badge calling upon a homemaker. He is accepted as an expert. He can build more good will in these visits than any other thing the department can do."

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and briefed in the plan, and their part in it. Chief Stevens and many other authorities believe the fire apparatus, if it is on a "radio inspection" should be appropriately placarded to indicate the mission of the unit. In Hershey, Pa., a large poster on each side of the pumper reads: "No Fire—Company Inspecting In This Area." Berkeley, Calif., apparatus carry placards reading: "This Company is NOT on a Fire Call. They are Making Fire Prevention Inspections and Pre-Planning Fire Fighting Strategy in this area." Other cities have different adaptations of the same explanation.

Further Recommendations

Here are some of the Committee's further recommendations:

1. Develop an enlightened public consciousness and realization by every parent, and civic official in particular of the seriousness of the problem, and necessity of fire department inspections.
2. Promote adoption of suitable codes and stringent laws and ordinances, at all levels, state, township, district, village, etc. to correct existing hazardous occupancies and prevent new ones. Also, to better safeguard children who may of necessity be left alone by parents. (Canadian fire chiefs long ago adopted a resolution calling for proper supervision of such children; other places have outlawed the deadly kerosene heater).
3. Give to the fire service greater authority to make inspections, to locate violations of codes and ordinances, and to prosecute offenders. See to it that there is greater coordination of all municipal agencies in combating this problem.
4. Closer cooperation between architects, builders and the fire service in preparation of plans and construction of dwellings (wider use of fire resistive materials, more exits, more fire-stops and cut-offs, etc., and submission of plans to fire departments before construction) to better protect occupants of all ages.
5. Stress more fully, potential saving to life through better fire prevention effort and campaigns (at present broadest emphasis appears to be on reducing the heavy property losses).
6. Develop public and private financing of this worthy cause to extend its possibilities.

Auxiliary Firemen Suggested Training Manual

The State of Texas, Allan Shivers, Governor, through its Division of Defense and Disaster Relief, has published a manual entitled "Auxiliary Firemen Suggested Training Manual."

The booklet is about 5½ x 8 in., contains 110 pages of text with numerous illustrations. Subjects covered include fire department organization, apparatus, alarm system, running cars and training of auxiliary firemen. Also chapters on the Nature of Fire, Minor Fire Extinguishment; Forcible Entry; Handling Ladders and Hose, Hose Loads and Hose Line Operation; Pumper Practices; tilation; Protective Equipment; Theory of Pump Operation; Pumper Practices; Calculating Engine Pressures; Pumping in Relay; and Salvage and Overhaul.

Effort has been made to crowd a great deal of pertinent information into small space.

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Alarm Box Systems

(*Continued from page 129*)

restore the fire alarm system, its own commercial phone system would demand some concentration of its resources (even if it were not necessary to draw upon out-of-district facilities).

This is further illustrated by the report of one municipality which stated: We are dependent on the local power company for maintaining our outside lines. Consequently we had to wait until they had completed major repairs on their own lines.

The contract stipulations of the leased service would apparently not permit the municipal signalmen to work on telephone cables even in an emergency.

Viewing some of the technical, or 'mechanical' aspects of the picture, it should be remembered that in assessing hurricane damage to both services, the telephone and telegraph were subject to the same onslaughts. Many of the fire alarm telegraph wires, due to their rugged design and construction, remained in service, even when mounted on the same poles as the utilities. Also, small gauge, paper-insulated wires are not as satisfactory for fire alarm service as standard gauge rubber insulated conductors. The Underwriters say so and signalmen are aware of it. "Carol" proved it.

On the subject of conductors, a recent editorial in the "Boston Herald" vividly points out the weakness in paper insulated telephone conductors (as contrasted the rubber covered conductors generally required for the fire communications): "In Providence, R. I., thousands of downtown phones were knocked out by hurricane 'Carol' and were still out when 'Edna' flooded manholes, burying telephone cables under tons of water. The regular system in that area of about 8000 telephones was actually destroyed—entire cables and switchboards had to be replaced. Service was out for two weeks. Contrast this with the report on the Providence fire alarm telegraph system. They were able to restore fire alarm protection to the city, with the exception of four circuits, by 9:00 p.m. the same day as the hurricane and complete service was restored the next day."

550,000 Phones Silenced in N.E.

"Carol" and "Edna" silenced about 550,000 telephones in New England alone, or about 15 per cent of the total phones in service in that section of the country. Considering that large sections of New England were undamaged, it would seem a substantially higher percentage of phones in affected areas were

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put out of service. With large areas deprived of phone service for days, no fires could be reported by telephone.

Although hurricane "Hazel" missed New England, Washington, D. C. was hit hard by it. Power was out in many areas in excess of 72 hours—street and traffic signals disabled—telephones out of service. The only completely functioning wired communication systems in the Nation's Capital during the emergency was the police and fire alarm telegraph systems. At no time were they out of service.

The story is the same in other areas south of Washington where the several hurricanes struck. In nearly every case where sound comparisons could be made, the reliability and ruggedness of the municipal fire alarm system was demonstrated.

California Fires

(*Continued from page 127*)

Then two city firemen, Howard Scott and Robert O. Crume, were injured when the roof of a garage they were on collapsed.

Scott was falling into the boiling flames when a fellow fireman managed to grab him. Just as his grip was weakening, another fireman arrived and Scott was dragged out safely.

Both firemen were taken to Hollywood Receiving Hospital and treated for cuts and bruises. Scott later we removed to Georgia St. Hospital where it was reported that he had a concussion.

Spectators and homeless families watched in amazement as the firemen battled the raging flames.

"The way those firemen went in there without regard to their own safety was remarkable," commented one resident.

Chief Robinson was lavish in his praise for the city firemen and the help they provided.

"The L.A. boys really did a wonderful job," Chief Robinson said. "Their help was invaluable."

Damage to Run $200,000

Mrs. Harriet Hewitt, manager of the village, said damage would run in excess of $200,000. She said that none of the residents or even any of their many pets were injured. Eleven automobiles in the garages were destroyed and firemen were hampered at times by exploding gas tanks.

Capt. Jack Connors of the L.A. County Fire Prevention Bureau and Sgt. Ed Hatcher of the Sheriff's Arson Detail said the fire probably started in the upholstery of a car in the garage.

The site of the Normandie Village blaze was almost directly across the street from the last big Strip fire which gutted the Officer's Club three years ago.

Responding on the alarm from L.A. County were Engines 7, 8, 108, 38, 58, 54, 22; Truck 8; Rescue 8; Battalion 1 Chief Robinson; Division 2, Asst. Chief Harvey Anderson; Asst. Chief Les Dutton, Fire Prevention Engineer; Deputy Chief John Duncan; and Chief Engineer Keith E. Klinger.

Responding from L.A.F.D. were Engines 41, 27, 51; Trucks 27, 35; Salvage 27; Utility 27; Battalion 5 Chief Gross; Division 2 Chief Moore.

Extensive overhauling operations were necessary.

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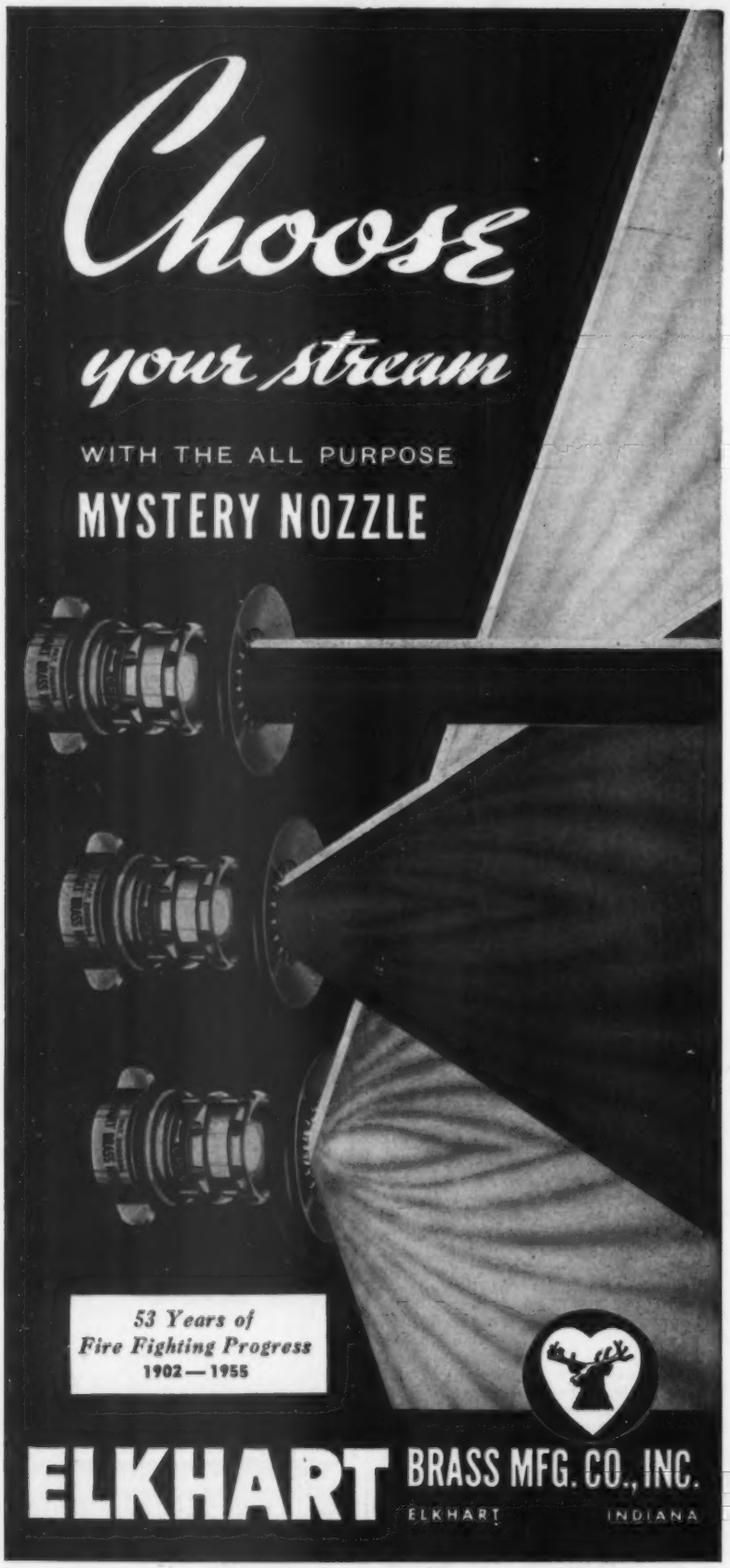

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